DENON

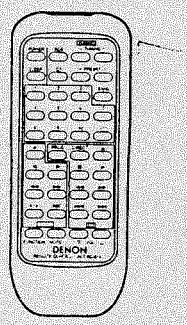
Hi-Fi CD AMP Tuner System

Europe Model

SERVICE MANUAL

MODEL RCD-100

CD AMP TUNER



Note: The illustrations used here may differ slightly from the actual unit.

MAIN FEATURES

- **RDS reception (FM only)**
  RDS programs can be easily received (FM only).
- **AM/FM 30-station random preset tuner**
  Random presetting permits easy operation and will beconvenient for the increased number of FM stations in the future.
- **Independent power amplifier designed for quality sound**
  High quality 45 W per channel power amplifier with large speaker terminals.
- **Super linear converter and high performance digital filter**
  Denon's unique systems for preventing loss of CD sound quality permit excellent sound field reproduction.
- **Easy-to-use remote control unit**

BEFORE USING

Note the following points before using the RCD-100.

- **Moving the system**
  To prevent short-circuiting or damage of the connection cords, be sure to unplug the power cord and disconnect all connection cords before moving the system.
  In addition, always remove CDs before moving the system. Failing to do so may result in scratched CDs.
- **Before switching on the power**
  Check again that all connections are proper and that the connection cords are not damaged. Be sure to disconnect the power plug before disconnecting or connecting the connection cords.
- Hum may be produced if a TV set or another audio component is set near this system or their connection cords are nearby. If this happens, try changing the position of the equipment and connection cords.
- Do not move the system abruptly from a cold place to a warm place, since this may cause water droplets (condensation) to form in the equipment, preventing proper operation. If this happens, wait one hour before using the system.

Check that the following parts are included in the package aside from the main unit:

① Operating Instructions 1
② FM Indoor Antenna 1
③ AM Loop Antenna 1
④ Remote Controller 1
⑤ R6P Batteries 2
⑥ AC Cord 1

NIPPON COLUMBIA CO., LTD.

TABLE OF CONTENTS

Only discs with the mark at the right can be played on this system.

COMPACT disc DIGITAL AUDIO

PACKING & ACCESSORIES PARTS LIST

Ref. No.	Part No.	Part Name	Remarks	Q'ty
◉ 1	RCD 100	CD AMP Tuner		1
◉ 2	505 0131 050	Cabinet Caver		1
◉ 3	503 9308 105	Cushion Ass'y		1
◉ 4	501 9297 003	Carton		1
◉ 5	GEN 7842	Envelope Sub Ass'y		1[5]
5-1	505 0283 018	:Poly Cover		(1)
5-2	511 9466 006	Inst Manual		(1)
5-3	399 9054 009	RM Control	RC-814	(1)
5-4	394 0040 004	:Battery(R6P/UM-3) Ass'y		(1)
5-5	395 0023 008	:FM Ant Ass'y	L=1.8 m	(1)
5-6	231 1914 003	Loop Antenna		(1)
⚠ 5-7	206 2108 003	:AC Conn.With Plug	L=1.8 m	(1)

SPECIFICATIONS

■ Receiver (UCD-100)

● Tuner

Reception Frequency Range:	FM: 87.50 MHz to 108.00 MHz
	AM: 522 kHz to 1611 kHz
Receiving Sensitivity:	FM: 1.5 µV, 75 ohms (SN ratio 30 dB)
	AM: 20 µV (SN ratio 20 dB)
FM Stereo Separation:	40 dB (1 kHz)

● Amplifier

Rated Output Power:	45 W + 45 W (1 kHz, 4 ohm)
Jacks:	6.3 mm headphone jack
Bass Adjustment:	100 Hz ±8 dB
Treble Adjustment:	10 kHz ±8 dB
Loudness control:	100 Hz/10 kHz +6 dB/ +3 dB
Jacks:	MD/AUX: Input jacks, recording output jacks
	Tape: Input jacks, recording output jacks
Power Supply:	AC 230 V, 50 Hz
Power Consumption:	110W

● CD Player

Wow and Flutter:	Below measurable limits (±0.001% W. Peak)
Sampling Frequency:	44.1 kHz
Light Source:	Semiconductor
Dimensions (max.):	434(w)×94(H)×342(D)mm (17-5/64"×3-45/64"×13-30/64")
Weight:	7.5kg(16ℓbs 8oz)

■ Remote Control Unit (RC-814)

Type:	Infrared pulse
Number of Buttons:	40
Dimensions (max.):	52.5(w)×150(H)×18.3(D)mm (2-1/16"×5-8/9"×12/16") (including batteries)
Weight:	100g(Approx.4.6oz)

* Maximum dimensions include controls, jacks, and covers.
  (W) = width, (H) = height, (D) = depth
● For improvement purposes, specifications and functions are subject to change without advanced notice.

Please check the following items are included with the main unit in the carton:

(1) Operating Instructions 1
(2) AM Loop Antenna 1
(3) FM Antenna 1
(4) Remote Control RC-814 1
(5) Batteries R6 (AA) 2
(6) AC Cord 1

Vergewissern Sie sich, daß folgende Teile vollständig im Lieferumfang enthalten sind:

(1) Bedienungsanleitung 1
(2) MW-Rahmenantenne 1
(3) UKW-Antenne 1
(4) Fernbedienung RC-814 1
(5) Trockenzell-Batterien R6 (AA) 2
(6) Netzkabel 1

Veuillez vérifier que les articles suivants sont bien joints à l'appareil principal dans le carton:

(1) Mode d'emploi 1
(2) Antenne-cadre AM 1
(3) Antenne FM 1
(4) Télécommande RC-814 1
(5) Piles de format R6 (AA) 2
(6) Cordon secteur 1

Controllare che le parti seguenti si trovino imballate con l'apparecchio nella scatola di spedizione:

(1) Istruzioni per l'uso 1
(2) Antenna AM a telaio 1
(3) Antenna FM 1
(4) Telecomando RC-814 1
(5) Batterie a secco R6 (AA) 2
(6) Cavo d'alimentazione 1

Verifique que los artículos siguientes hayan sido suministrados con la unidad principal:

(1) Instrucciones de operación 1
(2) Antena AM de cuadro 1
(3) Antena de FM 1
(4) Unidad de control remoto RC-814 1
(5) Pilas secas R6 (AA) 2
(6) Cable de alimentación 1

Controleer of de volgende accessoires bij het hoofdtoestel in de doos zijn verpakt:

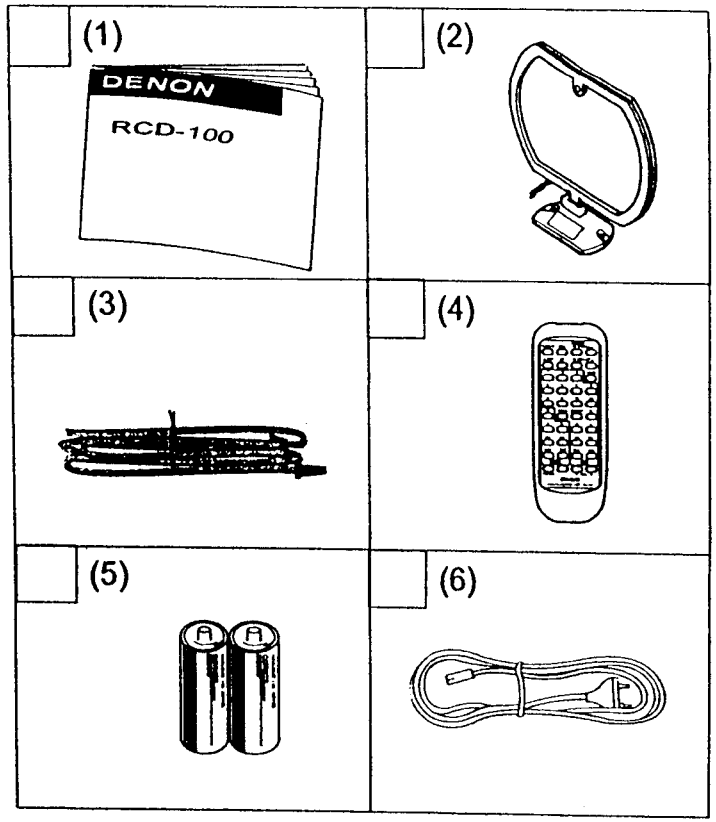
(1) Gebruiksaanwijzing 1
(2) AM-raamantenne 1
(3) FM-antenne 1
(4) Afstandsbediening RC-814 1
(5) R6 (AA) droge cel batterij 2
(6) Netsnoer 1

Kontrollera att följande tillbehör her packats ner i kartongen tillsammans med huvudenheten:

(1) Bruksanvisning 1
(2) Ramantenn för AM-bruk 1
(3) FM-antenn 1
(4) Fjärrkontroll RC-814 1
(5) R6 (AA) torrbatteri 2
(6) Nätkabeln 1

Verifique se os items que se seguem estão incluídos na caixa de cartão com a unidade principal

(1) Instruções de funcionamento 1
(2) Antena de quadro AM 1
(3) Antena FM 1
(4) Telecomando RC-814 1
(5) Pilhas R6 (AA) 2
(6) Cabo de alimentação 1



ENGLISH

• DECLARATION OF CONFORMITY

We declare under our sole responsibility that this product, to which this declaration relates, is in conformity with the following standards:
EN60065, EN55013, EN55020, EN60555-2 and EN60555-3.
Following the provisions of 73/23/EEC, 89/336/EEC and 93/68/EEC Directive.

DEUTSCH

• ÜBEREINSTIMMUNGSERKLÄRUNG

Wie erklären unter unserer Verantwortung, daß dieses Produkt, auf das sich diese Erklärung bezieht, den folgenden Standards entspricht:
EN60065, EN55013, EN55020, EN60555-2 und EN60555-3.
Entspricht den Verordnungen der Richtlinien 73/23/EEC, 89/336/EEC und 93/68/EEC.

FRANÇAIS

• DECLARATION DE CONFORMITÉ

Nous déclarons sous notre seule responsabilité que l'appareil, auquel se réfère cette déclaration, est conforme aux standards suivants:
EN60065, EN55013, EN55020, EN60555-2 et EN60555-3.
D'après les dispositions des directives 73/23/EEC, 89/336/EEC et 93/68/EEC.

ITALIANO

• DICHIARAZIONE DI CONFORMITÀ

Dichiariamo con piena responsabilità che questo prodotto, al quale la nostra dichiarazione si riferisce, è conforme alle seguenti normative:
EN60065, EN55013, EN55020, EN60555-2 e EN60555-3.
In conformità con le condizioni delle direttive 73/23/EEC, 89/336/EEC e 93/68/EEC.
Questo prodotto è conforme al D.M. 28/08/95 N 548.

ESPAÑOL

• DECLARACIÓN DE CONFORMIDAD

Declaramos bajo nuestra exclusiva responsabilidad que este producto al que hace referencia esta declaración, está conforme con los siguientes estandartes:
EN60065, EN55013, EN55020, EN60555-2 y EN60555-3.
Conforme con las provisiones de las directivas 73/23/EEC, 89/336/EEC y 93/68/EEC.

NEDERLANDS

• EENVORMIGHEIDSVERKLARING

Wij verklaren uitsluitend op onze verantwoordelijkheid dat dit produkt, waarop deze verklaring betrekking heeft, in overeenstemming is met de volgende normen:
EN60065, EN55013, EN55020, EN60555-2 en EN60555-3.
Volgens de bepalingen van de richtlijnen 73/23/EEC, 89/336/EEC en 93/68/EEC.

SVENSKA

• ÖVERENSSTÄMMELSESINTYG

Härmed intygas helt på eget ansvar att denna produkt, vilken detta intyg avser, uppfyller följande standarder:
EN60065, EN55013, EN55020, EN60555-2 och EN60555-3.
Enligt stadgarna i direktiv 73/23/EEC, 89/336/EEC och 93/68/EEC.

PORTUGUÊS

• DECLARAÇÃO DE CONFORMIDADE

Declaramos sob nossa exclusiva responsabilidade que este produto, ao qual esta declaração corresponde, está em conformidade com as seguintes normas:
EN60065, EN55013, EN55020, EN60555-2 e EN60555-3.
De acordo com o estabelecido nas directivas 73/23/EEC, 89/336/EEC e 93/68/EEC.

PRECAUTIONS FOR INSTALLATION
Install RCD-100 always horizontally. To ensure sufficient ventilation, leave a space of at least 10 cm between the front, sides and back of the unit and walls or other object which may obstruct ventilation.

VORKEHRUNGEN FÜR DIE AUFSTELLUNG
Stellen Sie den RCD-100 stets waagerecht auf. Um eine ausreichende Lüftung zu gewährleisten, muß ein Zwischenraum von mindestens 10 cm auf der Vorder- und Rückseite sowie an den Seiten zwischen dem Gerät und einer Wand bzw. anderen Objekten vorhanden sein.

PRECAUTIONS D'INSTALLATION
Le RCD-100 doit toujours être installé horizontalement. Pour permettre une ventilation suffisante, vous devez laisser un espace libre d'au moins 10 cm entre les faces avant, latérales et arrière de l'appareil et les murs ou tout autre objet qui pourrait gêner l'aération.

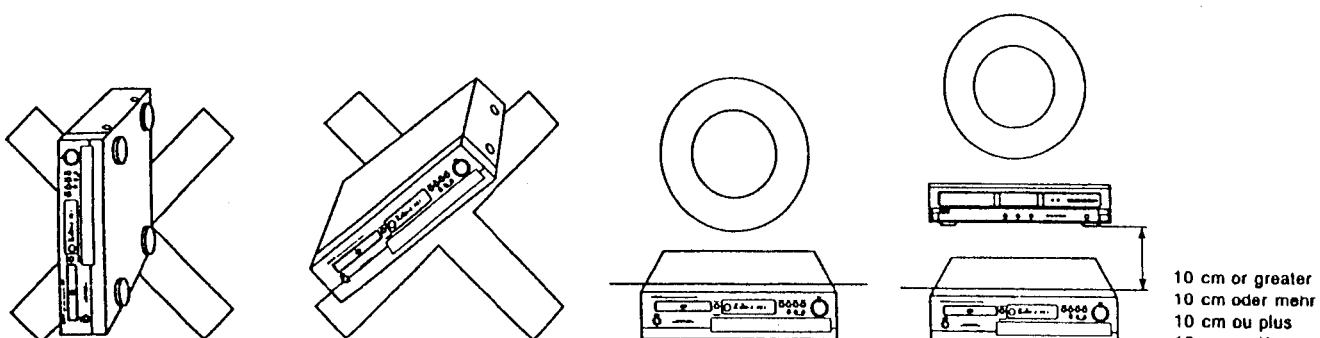
PRECAUZIONI PER L'INSTALLAZIONE
Installare il RCD-100 sempre in posizione orizzontale. Per avere una sufficiente ventilazione, lasciare uno spazio di almeno 10 cm tra la parte anteriore, posteriore i lati dell'unità e le pareti o eventuali altri oggetti che potrebbero ostacolare la ventilazione.

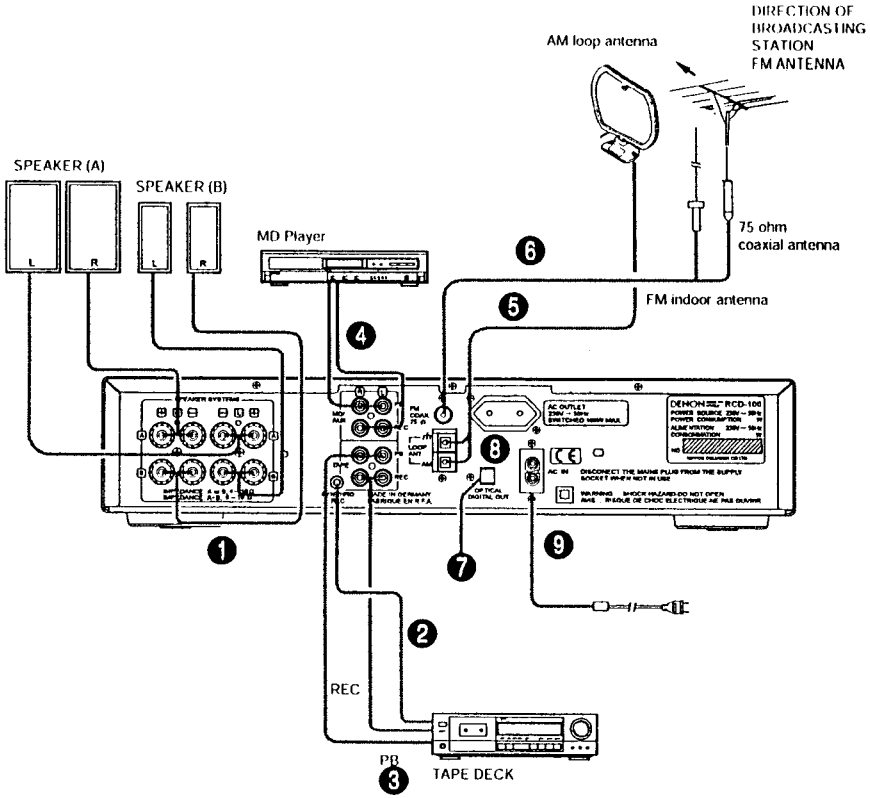
PRECAUCIONES PARA LA INSTALACION
Instale siempre el RCD-100 en posición horizontal. Para garantizar una ventilación suficiente, deje un espacio de al menos 10 cm entre los lados anterior, posterior y laterales del equipo y las paredes u otros objetos que pudieran obstruir la ventilación.

VOORZORGSMAATREGELEN VOOR INSTALLATIE
De RCD-100 altijd horizontaal plaatsen. Om voldoende ventilatie te garanderen dient u ten minste 10 centimeter ruimte open te laten tussen de voorkant, zijkanten, achterkant en de muur of andere voorwerpen die de luchttoevoer zouden kunnen blokkeren.

FÖRBEREDELSER FÖR INSTALLATION
Installera alltid RCD-100 horisontellt. Ventilationen ska vara god. Lämna ett utrymme på minst 10 cm mellan enhetens sidor och väggen och eventuella föremål som kan hindra ventilationen.

PRECAUÇÕES DURANTE A INSTALAÇÃO
Instale sempre o RCD-100 em posição horizontal. Para assegurar a ventilação adequada, deixe um espaço de pelo menos 10 cm entre a frente, os lados e a parte de trás da unidade e paredes ou outros objectos que possam obstruir a ventilação.





REAR PANEL

1 SPEAKER SYSTEMS (Speaker terminals)
Two pairs of speakers A and B can be connected to these terminals.

2 SYNCHRO Jack
To make a synchronized recording, this jack must be connected to the SYNCHRO jack of the deck with a connection cord. (See page 16 for connections.)

3 TAPE
Tape decks can be connected for full use including playing or copying.

4 MD/AUX
MD or Video Disc may be connected here.

5 AM ANT (AM antenna terminals)
Connect the attached AM loop antenna. (Refer to page 8 for connections).
Connect to this terminal when a medium wave outdoor antenna is used.

6 FM ANT (FM antenna terminals)
75-ohm coaxial cable can be connected to this terminal. For antenna connecting procedure, see ANTENNA INSTALLATION.

7 DIGITAL OUT (OPTICAL)
This jack outputs digital data.

8 AC OUTLET (AC power outlet)
This AC outlet is controlled by the power switch. (Except units sold in U.K. and Eire)

9 AC Inlet
Connect the included AC cord here.

SPEAKER CONNECTION

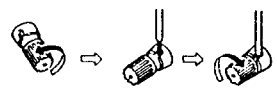
Confirm polarity (+,-) and left and right channels (L, R). Connect the speaker pairs to the SPEAKER terminals on the back panel. Connections must be made with power cord disconnected.

Preparing the cord

1. Peel of the sheath.
2. Twist the wires.

Connecting the front speaker terminals

1. Loosen by turning counterclockwise.
2. Insert the cord and tighten by turning clockwise.

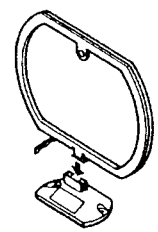


ANTENNA INSTALLATION

- **FM ANTENNA**
  The supplied indoor FM antenna can be used inside wooden houses for receiving local FM stations and other strong FM signals. Stretch out the end of the antenna and mount the antenna on the wall or ceiling where optimum reception is achieved. An indoor FM antenna may not consistently ensure stable reception, due to environment changes. In such cases, the indoor FM antenna should only be used temporarily until an outdoor FM antenna has been installed.
  When connecting an outdoor FM antenna, the use of 75 ohm coaxial cable (3C-2V, 6C-2V) is strongly recommended.

- **AM ANTENNA**
  Attach the supplied AM loop antenna even when using an outdoor AM antenna.
  Connect the leads to the AM and GND terminals.
  Also use the AM terminals for connecting an outdoor AM antenna (when making such a connection do not disconnect the AM loop antenna).
  Adjust the loop antenna to obtain optimum reception. Where broadcast stations are distant and only weak signals are received or where signals are blocked, it is best to install an outdoor AM antenna.

Assembling the Loop Antenna



- Remove the tie fastening the loop antenna's lead and connect the lead to the antenna terminals.

Notes on Connection
- Do not plug the power cord into the AC wall outlet until all connections have been completed.
- Make sure channels are correctly connected. Connect Left channels to Left channels and Right channels to Right channels. Follow the color markings of plugs and terminals to make sure mistakes are not made.
- Connect all pin-plugs securely, pushing them completely into the jacks incomplete connections will cause noise generation.
- Binding the connection cables to power cords, or running such cables close to power supply transformers will cause humming or noise, and should thus be avoided.

Notes:
- Do not connect two FM antennas simultaneously.
- Even if an external AM antenna is used, do not disconnect the AM loop antenna.
- Make sure AM loop antenna lead terminals do not touch metal parts of the panel.

CAUTION

Protective Circuit
This set is equipped with a high speed protective circuit. This circuit protects the internal circuitry from damage due to large currents flowing when the speaker jacks are not completely connected or when an output is generated by a short circuit.
This protective circuit's operation cuts off the output to the speakers. In such a case, be sure to turn the power to the set off and check the connections to the speakers. Then turn the power on again. After muting for several seconds, the set will operate normally.

DESIGNATIONS AND FUNCTIONS OF PANEL CONTROLS (REFER TO PAGE 3.)

FRONT PANEL

RECEIVER

❶ ON/STANDBY switch
When pressed once, the power is turned on and the display lights.

❸ DISPLAY button
Use this switch to toggle between the function and time display. For example, when the function is set to the tuner, the display switches between the reception frequency and time.
When RDS stations or stations for which you have written characters yourself and stored in the memory are tuned in, press this button once to display the frequency, then press again to display the time.

❹ MEMORY button
This button is used when presetting FM and AM stations.

❺ TIMER button
This button is used to set the timer.

❻ STANDBY button
Press this button to cause the timer to operate at the set time. When the timer has been set, pressing this button will light up the display's timer standby indicator (◷), and pressing it again will switch off the standby indicator. The timer will not function when the standby indicator is off.

❼ STEREO/MONO (FM Stereo mute/mono) button
This button will not function when receiving AM broadcasts.
(For FM reception)
AUTO: (mute) Use this mode to receive FM broadcasts in stereo. ("AUTO" appears on the display.) The muting circuit is activated to cut the hiss noise between stations.
MONO: In this mode, FM broadcasts are received in monaural, regardless of whether they are broadcast in monaural or stereo. Set to the mono mode if there is much noise in the stereo mute mode (with "AUTO" displayed) or if the signals are weak.

❽ TUNING UP and DOWN buttons
Use these buttons to tune in FM or AM stations and when setting the time and timer.

❾ BASS control
Use this control to adjust the bass.

❿ TREBLE control
Use this control to adjust the treble.

⓫ BALANCE control
Use this control to adjust the balance of the volume between the left and right channels. The volume is the same for the left and right channels when the control is at the center.

⓬ LOUDNESS (Loudness ON/OFF switch)
At low volumes, the human ear is less sensitive to low (BASS) and high (TREBLE) frequencies. Press this switch to compensate for this deficiency when listening at low volume levels.

⓭ SPEAKERS (Speaker selector switches)
These switches are used to select speaker system A and B. No sound is heard through the speakers when both switches are reset to the (▬) position.

⓮ PHONES jack
Connect a pair of headphones (sold separately) to this jack for private listening.

⓯ VOLUME control
This control adjusts the overall volume. Turn clockwise (↻) to increase the volume, and counterclockwise (↺) to decrease it.

⓰ ⓱ PRESET (Preset station buttons)
These buttons are used for storing stations or recalling stations which have been preset. Using the PTY button you can preset a total of 30 FM or AM stations into preset channels.
Once a radio has been memorized, the same station can later be tuned in instantly simply by recalling the corresponding preset channel with PRESET UP or DOWN button.

⓴ RDS button
Use this button to automatically tune to stations using the radio data system.

㉑ BAND (FM/AM) button
With each press, the band is switched in the order of FM, AM, FM and so on.

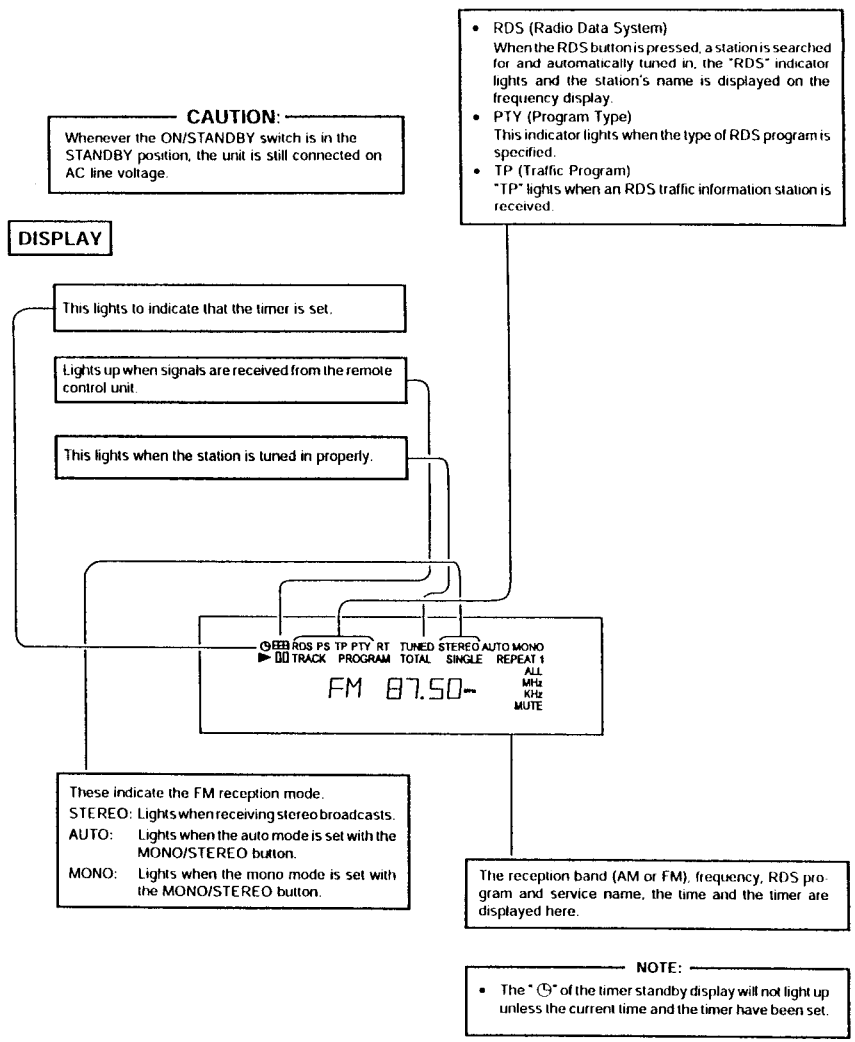
㉒ FUNCTION button
Use this button to select the program source
The selection changes in the order of TUNER, CD, TAPE, and MD/AUX.
NOTE: The auto function serves to automatically switch the function when the operation buttons are pressed on the unit.
Tuner: BAND button
CD: Play button (►)

㉓ DISPLAY
The display indicates a wide variety of information including: functions and MUTE of the amplifier, frequency and reception conditions of the tuner and number of tracks and time of the CD.

㉔ Remote control sensor
The remote control unit is pointed and operated toward this sensor.

CAUTION:
Whenever the ON/STANDBY switch is in the STANDBY position, the unit is still connected on AC line voltage.

DISPLAY



NOTE:
- The "◷" of the timer standby display will not light up unless the current time and the timer have been set.

CD PLAYER

❷ REPEAT button
Press this button for repeat play.

⓰ Automatic Search Forward button (▶▶I)
- Press this button to move the pickup forward to the beginning of the next track. Press again to move ahead to other tracks.
- By pressing the button a number of times, the pickup will advance the corresponding number of tracks.
- Press this button to move the pickup forward to the beginning of the desired track.

⓱ Automatic Search Reverse button (I◀◀)
- Press this button to return the pickup to the beginning of the present track. Press again to return to other tracks.
- By pressing the button a number of times, the pickup will move back the corresponding number of tracks.
- Press this button to move the pickup back to the beginning of the desired track.

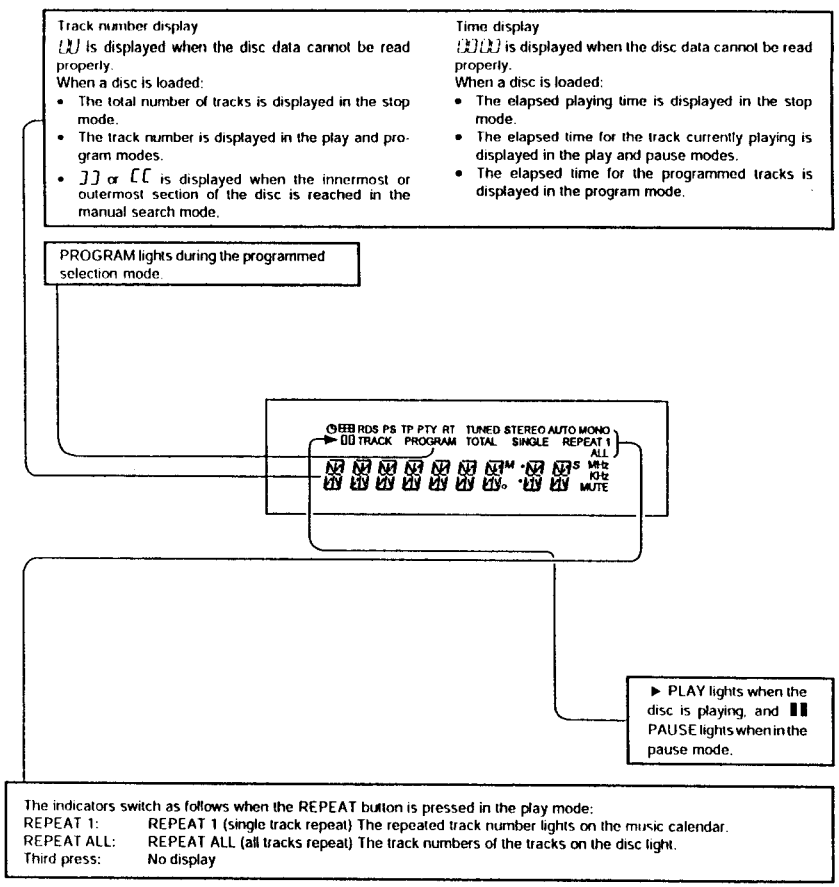
⓲ ■ STOP button
Press this button to stop CD play.

⓳ ▶ PLAY button
Press this button to start playing the disc. If pressed when the disc tray is open, the disc tray closes and playback begins. Pressing this button in the standby mode automatically switches on the power and plays the disc.

㉕ ▲ OPEN/CLOSE button
Press this button to open the disc tray. Press once to open the disc tray forward, then press again to close the disc tray. This button also operates in the standby mode.

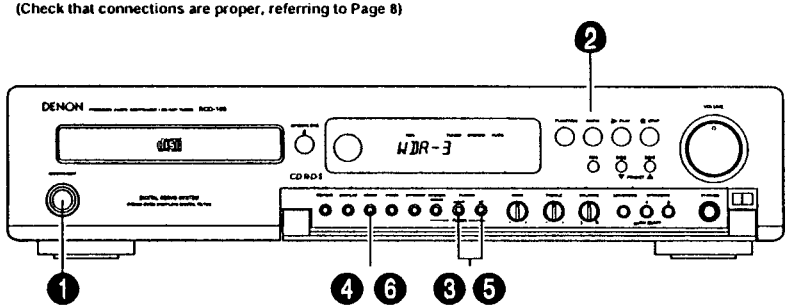
㉖ Disc tray
Compact discs are loaded to the disc tray.

CD PLAYER DISPLAY



LISTENING TO RADIO BROADCASTS

(Check that connections are proper, referring to Page 8)



Example: Tuning to 87.50 MHz, FM

1	Set the VOLUME control to the minimum position, then press the ON/STANDBY button of the receiver.	ON/STANDBY	
2	Select the FM band with the BAND button.	AM/FM	Set to FM. → FM 90.00
3	Use the UP and DOWN buttons to set the frequency to 87.50 MHz.	TUNING DOWN UP	Lights up when the station is tuned in. FM 87.50

Presetting FM and AM Stations

Example: Presetting the (currently tuned) FM 87.50 MHz to preset number 3

4	Press the MEMO button. "P — — M" flashes for 10 seconds.	MEMO	FM -P -- M- (Flashes)
5	Use the TUNING UP and DOWN buttons to call up the number to which you want to preset the station. Or, directly press the number buttons on the remote control unit. The preset number will flash.	TUNING DOWN UP	FM -P 03 M- (Flashes)
6	Press the MEMO button while "P03M" is flashing.	MEMO	FM P 03 M Set the preset number 3.

Up to 30 FM and AM stations can be preset at random using this procedure.

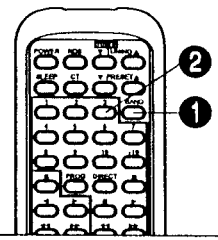
Note: The character writing mode is set if the MEMORY button is pressed in for over 3 seconds.

Auto Tuning

- When the TUNING buttons are pressed, the frequency changes in steps of 50 kHz for FM, 9 kHz for AM.
- If the TUNING UP or DOWN button is held in for more than 0.5 seconds, the frequency continues to change when the button is released. The next station is tuned in automatically and the tuning stops there. The auto tuning might not stop when a weak signal is received at the antenna. At this time the "TUNED" display will not light. To stop the auto tuning, press the UP or DOWN button again.

Listening to Preset Stations

Example: Listening to the FM station preset at number 3

1	Press the TUNER BAND button on the remote control unit.	 FM P 03 M
2	Press button "3" on the remote control unit.	

FM Stereo Reception

- When the MONO/STEREO button is pressed (which lights the AUTO indicators) and an FM stereo broadcast is received, the STEREO indicator lights and the station is received in stereo. If the MONO indicator is lit by pressing the MONO/STEREO button, the STEREO indicator goes off and the station is received in monaural.

Notes on Presetting

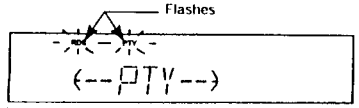
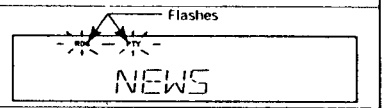
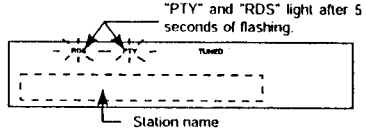
- When an FM station is preset, the auto or monaural mode is also set, so check the display before presetting the station.
- If a station is preset to a number at which another station has previously been preset, the previous station is cleared and the new station is preset.
- If the power cord is unplugged, the preset memory is not cleared immediately, but will be cleared if the cord is left unplugged over a long period. Should this happen, preset the stations again.

Receiving RDS broadcasts (FM only)

1	Press the BAND button and set the FM band.	FM 87.50
2	Press the RDS button once.	Flashes. RDS "RDS" blinks
3	Press the TUNING UP or DOWN buton.	Flashes. 87.50 "RDS" blinks
4	The station is tuned in.	"RDS" lights after 5 seconds of flashing. Station name Once the station is tuned in, "RDS" flashes for 5 seconds and the program service name is displayed. When another station is desired, press the UP or DOWN button of TUNING while "RDS" is flashing and start the tuning.

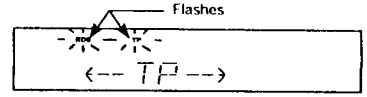
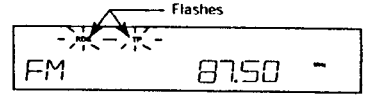
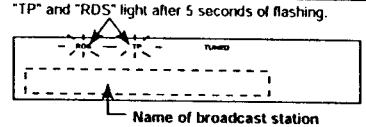
NOTE: If no RDS station is found, "NO RDS" is displayed.

PTY Search

1	Press the RDS button twice.	Flashes  ("PTY" und "RDS" flash and "← — PTY — →" is displayed.)
2	Press the PRESET UP or DOWN button on the remote control unit to select the type of program. (One of the 15 types listed below can be selected.)	Flashes 
3	Press the TUNING UP or DOWN button.	
4	The station is tuned in.	"PTY" and "RDS" light after 5 seconds of flashing.  Station name Once the station is tuned in, "RDS" and "PTY" flash for 5 seconds and the program service name is displayed. When the UP or DOWN button of TUNING is pressed while "RDS" and "PTY" are flashing, tuning is started again.

NOTE: If no program of the specified type is found, 'NO PRO G' is displayed.

TP Search

1	Press the RDS button 3 times.	Flashes 
2	Press the TUNING UP or DOWN button of TUNING.	Flashes 
3	Broadcast reception.	"TP" and "RDS" light after 5 seconds of flashing.  Name of broadcast station Once the station is tuned in, "RDS" and "TP" flash for 5 seconds and the program service name is displayed. When the UP or DOWN button of TUNING is pressed while "RDS" and "TP" are flashing, tuning is started again.

NOTE: 'NO PRO G' is displayed when there is no traffic information broadcast station.

NOTE:

The RCD-100 is designed so that RDS broadcasts can be received. In some countries and areas, however, no RDS broadcasts are offered.

- "PTY" is a code which identifies the type of program.
- "TP" is a code which identifies the station providing the traffic information.
- "CT" is a signal providing time data in one minute units.
- Some stations which provide RDS broadcasts do not broadcast CT signals, in which case the time display cannot be corrected by pressing the CT button on the remote control unit.

RDS Emergency Alarm

"ALARM" will flash on the display when the unit receives the Emergency Programme Type Code (PTY31) from an RDS station. This feature may not operate properly if the signal from the RDS station is too weak or is subjected to interference.
It is not possible to select the "ALARM" display from the PTY search mode.

Programs

NEWS	(News)	VARIED	(Varied)
AFFAIRS	(Current Affairs)	POP M	(Pop Music)
INFO	(Information)	ROCK M	(Rock Music)
SPORT	(Sport)	MOR M	(M.O.R. Music)
EDUCATE	(Education)	LIGHT M	(Light Classics)
DRAMA	(Drama)	CLASSICS	(Serious Classics)
CULTURE	(Culture)	OTHER M	(Other Music)
SCIENCE	(Science)	ALARM	(Alarm)

NOTE: ALARM cannot be selected during the PTY search operation.

Writing Characters

The RCD-100 includes a function for writing characters.

Example: Writing the characters "MY RADIO" for the station at FM 107.70 MHz and storing this at preset channel

1	Use the BAND button and the TUNING UP and DOWN buttons to display FM 107.70 MHz.	FM 107.70
2	Press the MEMO button for at least 3 seconds so that "P — — M" flashes on the display.	FM -P -- M- (Flashes)
3	Use the TUNING UP and DOWN buttons to select preset channel 5.	FM -P 5 M- (Flashes)
4	Press the MEMO button. The "—" begins to flash.	(Flashes)
5	Use the TUNING UP and DOWN buttons to select the character "M", then press the PRESET UP button on the remote control unit. The "—" stops flashing, and the "M" in the second place starts flashing.	M (Flashes)
6	Use the TUNING UP and DOWN buttons to select the character "Y", then press the PRESET UP button on the remote control unit.	MY (Flashes)
7	Repeat this procedure to write "MY RADIO", then press the MEMO button. "PRESET" stops flashing and the character writing mode is cancelled.	MY RADIO

The characters which can be written are shown below.

- The characters change in the direction of the arrow when the PRESET UP button is pressd, and in the opposite direction when the PRESET DOWN button is pressed.
- The character sequence starts over from A each time a character is set.

→ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z →

→ 0 1 2 3 4 5 6 7 8 9 C \ ] + - / ( ) _ ! " * = , SPACE →

NOTES:

- The cursor can be moved to correct a character by pressing the PRESET button during the character writing mode.
- Characters can also be written in the same way when in the AM mode.

7 USING THE TIMER

Setting the Timer

- Be sure to set the current time.
- Regular timer: The power can be switched on and off once every day at the same time. (Wake-up music)
- Sleep timer: The power can be set to turn off in up to 60 minutes in steps of 10 minutes using the remote control unit. (Bedtime music)

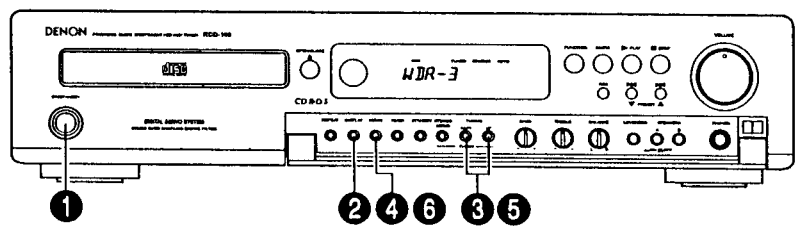
Be sure to preset stations before setting the timer.
Refer to "Presetting FM and AM Stations" on Page 11.

- Turn the standby switch off when not using the timer.
- It is not possible to set the timer on during CD-mode.

Power Failure

Should a power failure occur or if the power cord becomes unplugged from the power outlet, "0:00" will flash on the time display. If this happens, reset the current time.
(Reset the current time and timer settings. If "0:00" was displayed, also reset the stations preset on the tuner.)
The standby mark starts flashing if there is a power failure or the power cord is unplugged while the standby mark is lit. If this happens, reset the time and the timer. (If the display reads "0:00", also reset the tuner's preset channels.)
To make the standby mark stop flashing, press the TIMER button, then press the TIMER button while "FUNC" is displayed.

Setting the Current Time (A 24-hour clock display is used.)

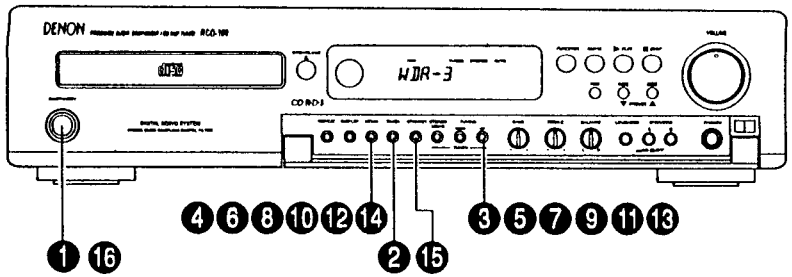


Example: Setting to 19:30 (7:30 p.m.)

1	Press the ON/STANDBY button of the receiver.	ON/STANDBY	
2	Press the DISPLAY button for 3 seconds or longer.	DISPLAY	0:00 The hour's place flashes. (All places flash if the time has already been set.)
3	Set the hours with the UP and DOWN buttons.	TUNING DOWN UP	19:00 The set places flashes.
4	Press the MEMO button.	MEMO	19:00 The minutes' places flash.
5	Set the minutes with the UP and DOWN buttons.	TUNING DOWN UP	19:30 The set places flash.
6	Press the MEMO button at the sound of a time signal. The time display lights steadily and the clock starts keeping the time.	MEMO	19:30 The display light steadily and the clock starts to count from 0 seconds.

Setting the Timer

(Preset the FM and AM stations in advance)



Example: Setting the timer to turn on at 12:35 and off at 12:56.
90.00 MHz FM is being received on preset number "1".
87.50 MHz FM is set to preset number "3".

1 2	Press the ON/STANDBY button. Press the TIMER button.	ON/STANDBY TIMER	TIMER
3	Press the UP and DOWN buttons to diplay "TUNER".	TUNING DOWN UP	FUNCTION TUNER
4	Press the MEMO button.	MEMO	FM -P- - - (Flashes)
5	Use the UP and DOWN buttons to set the preset number 3.	TUNING DOWN UP	FM -P 3 - (Flashes)
6	Press the MEMO button.	MEMO	oN -0:00 (Flashes)
7	Use the UP and DOWN buttons to set the hour at which the timer is to switch on.	TUNING DOWN UP	oN -12:00 (Flashes)
8	Press the MEMO button.	MEMO	oN 12:00-
9	Use the UP and DOWN buttons to set the minutes at which the timer is to switch on.	TUNING DOWN UP	oN 12:35- (Flashes)
10	Press the MEMO button.	MEMO	oFF -0:00 (Flashes)
11	Use the UP and DOWN buttons to set the hour at which the timer is to switch off.	TUNING DOWN UP	oFF -12:00 (Flashes)
12	Press the MEMO button.	MEMO	oFF 12:00- (Flashes)
13	Use the UP and DOWN buttons to set the minutes at which the timer is to switch off.	TUNING DOWN UP	oFF 12:56- (Flashes)
14	Press the MEMO button.	MEMO	FM 90.00
15	Press the STANDBY button.	STANDBY	Lights up. (See NOTE) FM 90.00
16	Press the ON/STANDBY button.	ON/STANDBY	"◷" is displayed. The illumination goes off and the current time is displayed. FM 10:15

- When the STANDBY button is pressed and the "◷" mark is lit, the timer will function at the same times each day.
- To switch off the timer, press the STANDBY button and turn off the "◷" mark.

NOTE:

The timer standby mark "◷" will not light unless the current timer has been set. Should this be the case, set the current time, then press the STANDBY button.

NOTE:

1) When there is an irregularity in the contents of the display or in the operation, unplug the power cord from the power outlet, then, while pressing down both the DOWN button of TUNING and the MEMORY button at the same time, plug the power cord into the power outlet again.
   All conditions will return to their initial settings and the display will appear normal. It will now be necessary to reset the presets, current time, and the timer setting time.
2) To enable remote control operation of this system, the AC power is always supplied to the system. Even when the POWER button has been switched off, the display of the tuner will continue to be lit dimly.

Ways to Use the Timer

Example 1: Waking up to the music of a compact disc.

1 EVERYDAY TIMER

1	ON/STANDBY → OPEN / CLOSE → OPEN / CLOSE Press the receiver's ON/STANDBY button to switch on the power. → Press the CD player's OPEN/CLOSE button to open the tray. → Set the compact disc in the tray. → Press the OPEN/CLOSE button again to close the tray.		
2	Press the receiver's TIMER button.	TIMER	TIMER
3	Press the UP and DOWN buttons of the receiver to display "CD".	TUNING DOWN UP	FUNCTION CD
4	Follow steps 6 to 16 under "Setting the Timer" on Page 14.		

Checking the Timer Settings

To check the timer settings, turn on the receiver's ON/STANDBY button, press the TIMER button. The timer start mode, reception band, preset number, on time, and off time are displayed in order each time the MEMORY button is pressed. One more press returns the display to the reception frequency.

Changing the Timer Settings

When the timer setting operation is repeated, the previous settings are deleted and the new settings are set.

Note about the Set Timer

If the set time of the timer is reached while the power is on, the timer settings will take over and there will be a switch to the function that has been set on the timer.

Cancelling the Timer

Press the STANDBY button and the "◷" mark will go off.

Setting the Sleep Timer

(Use the remote control unit for these operations.)
Example: Setting the power to switch off in 50 minutes.

	Currently receiving 87.50 MHz, FM.	FM 87.50 MHz	
1	Press the remote control unit's SLEEP button.	SLEEP 60 "SLEEP" appears and flashes for 5 seconds. "60" is displayed	
2	Press the SLEEP button again while "SLEEP" is flashing.	"50" is displayed, and the frequency display (87.50) reappears after 5 seconds.	The power is switched off after 50 minutes.

- If the sleep timer and regular timer settings overlap, the sleep timer is given priority.
- Do not press the STANDBY button after the power has been switched on with the timer. If this is done, the timer will not function properly.
- If the same time is set for the on time and off time, the power will not be switched on even when the "STANDBY" indicator is lit.
- If the timer is set for an AM or FM station and the on time of the timer is reached while listening to another station, the tuner switches to the station which was set with the timer.
- When the SLEEP button is pressed and the "◷" mark flashes, the sleep timer will operate at the same time.

Cancelling the Sleep Timer

- To cancel the timer while it is operating in the sleep mode, press the SLEEP button.
- Press the SLEEP button repeatedly until the power turns off. This cancels the sleep timer.

15

11 PLAYING CDs

Compact Discs

- Press the OPEN/CLOSE button (▲) once to open the disc tray, once again to close it.
- The disc tray can also be closed be pressing the play (►) button.
  When this is done, playback automatically starts from the first track on the disc (or if the tracks are programmed, the first programmed track).
- Load the disc with the label side facing up, being careful not to touch the disc surface.
- Load the disc with the disc tray guide at the center of the disc tray.
  To play on 8 cm disc, place the disc in the sunken part at the center of the disc tray.
- When the disc tray is closed, the disc turns automatically for several seconds, and the number of tracks and total playing time appear on the display.

COMPACT disc DIGITAL AUDIO

Only discs with this mark can be played.

- For CDVs, only the audio part is played (the video part is not played).

Disc	Remarks
CD	
CDV	Only the audio part is played.
CD single (8 cm)	

Handling the Disc Tray

Do not switch off the power or push or pull the disc tray when it is moving, since this may damage it.
If the cord of a set of headphones, etc., gets caught in the disc tray when it is closed, press the OPEN/CLOSE button (▲) again.

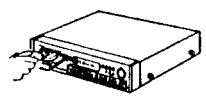
- Never set objects other than CDs in the disc tray, as this can cause damage.

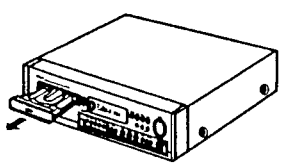
■ When removing the disc from its case:

As shown in the diagram, grasp the disc along the edges, gently press down on the hole in the middle with a finger, and lift the disc. It should come out easily.

■ When setting the disc in the disc tray:

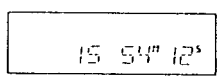
Always set the disc with thelabel side facing up. (Compact discs can only be played on one side).
For 8 cm CDs, set the disc in the sunken part in the middle of the tray.



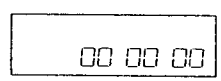


Precautions:

- If no disc has been loaded or the disc has been placed upside down, all indicators will light.
- When the information on the disc cannot be read correctly, for example due to dust or dirt on the disc, the indicators will read as shown below. Nothing will be shown on the TRACK NO. and TIME displays, and it may take quite a while to read the disc.

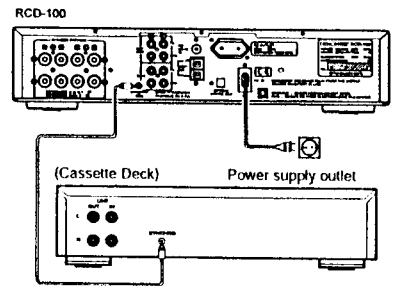


Normal display

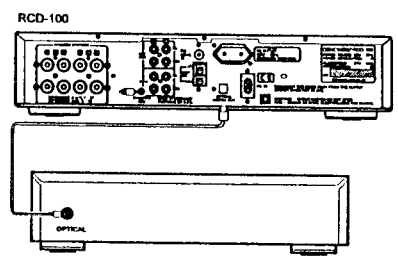


Improper display

- **SYNCHRO Jack Connections**
  Connect the SYNCHRO jack with a DENON cassette deck which is equipped with a SYNCHRO jack, then make a synchronized recording. Use the connection cord supplied with the cassette deck.
  To make use of this function, also connect the output jacks and make the settings so that a recording can be made from the RCD-100 player to the cassette deck.
  The remote control signal receive indicator of the display will blink during synchronized play.



- **Connecting the Digital Output Jack (OPTICAL)**
  Use an OPTICAL cable to connect the digital output jack (OPTICAL) of the RCD-100 to the digital input jack (OPTICAL) on a MD or D/A converter unit, available in stores.



Digital processor or D/A converter unit (Amplifier)

OPENING AND CLOSING THE DISC HOLDER AND LOADING A DISC

Opening and closing the disc holder (This operation only works while the power is on.)

1. Press the ON/STANDBY switch to turn on the power.
2. Press the OPEN/CLOSE button (▲).

How to load a disc

- Make sure the disc holder is completely open.
- Hold the disc by the edges and place it on the disc tray. (Do not touch the signal surface, i.e., the glossy side.)
- When using 12 cm diameter discs, make sure the outer edge matches the tray guide circumference (Fig. 1), and when using CD singles (8 cm diameter), match the outer edge with the inner tray guide circumference (Fig. 2).
- Press the OPEN/CLOSE button (▲) to close the disc holder.
- When the disc holder is closed, the disc is read and after a few seconds the number of tracks and total playing time are displayed on the TRACK NO. and TIME displays, respectively.
- When the disc holder is open and a disc is loaded, you may also press the play (► PLAY) or pause (❚❚ PAUSE) button to close the disc holder. (If the play button (► PLAY) is pressed, playback will start immediately upon the disc contents having been read.)

Fig. 1

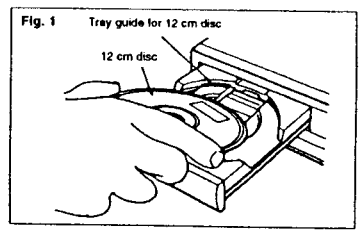
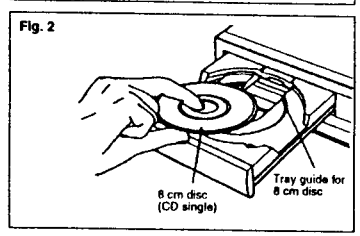


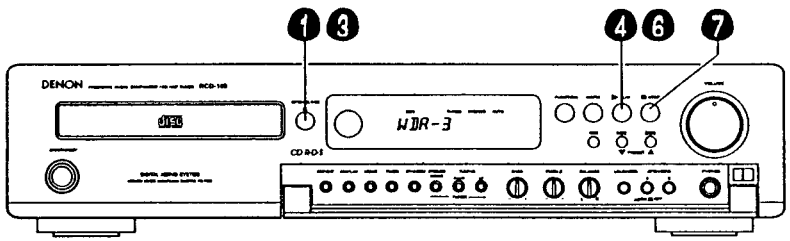
Fig. 2



Caution:

- If your finger should get caught in the disc holder when it closes, press the OPEN/CLOSE button (▲).
- Do not place any foreign objects on the disc tray, and do not place more than one disc on the tray at a time. Otherwise malfunction may occur.
- Do not push in the disc tray manually when the power is off as this may cause malfunction and damage the CD player.

Regular Play



Example: Playing a CD with 15 tracks and a total playing time of 62 minutes 03 seconds, starting from track 1

1	Press the ON/STANDBY button of the receiver, then press the OPEN/CLOSE button.	OPEN/CLOSE The disc tray opens	TRACK 00 00" 00'
2	Set the CD in the disc tray. Refer to Page 16.		The display appears several seconds after the disc tray closes.
3	Press the OPEN/CLOSE button.	OPEN/CLOSE The disc tray closes	TRACK 15 62" 03'
4	Press the PLAY button.	► PLAY CD play starts	► TRACK 01 16" 01'

To stop play temporarily: (Perform this operation from the remote control unit only.)

5	Press the PAUSE button.	▮▮	"► PLAY" goes off and "▮▮ PAUSE" appears. CD play is paused at the point the button is pressed.

To resume CD play:

6	Press the PLAY button.	► PLAY	"▮▮ PAUSE" goes off and "► PLAY" appears. CD play resumes from the point the pause button was presed.

To stop CD play:

7	Press the STOP button.	■ STOP	15 62" 03'

NOTE:

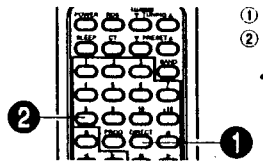
- "00" is displayed on the track number section of the display for several seconds after the disc is set, while the data on the number of tracks, playing time, etc., is being read from the disc. After this, the number of tracks and total playing time appear.

Various CD Play Functions

(Insert the disc before performing the following operations.)

❶ Playing Certain Tracks — DIRECT SELECTION

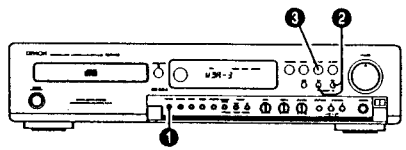
Example: Playing the 8th track
Perform this operation from the remote control unit.



① Press the DIRECT button.
② Press track button "8". "TRACK 8" appears on the display, and the 8th track begins playing.
- When the end of the track is reached, play continues on to the next track.

- For track numbers of 11 and higher, for example 15, press [+10] and [5]. For track numbers of 20 and higher, for example 23, press [+10], [+10], and [3]. For track number 20, press [+10] and [10].

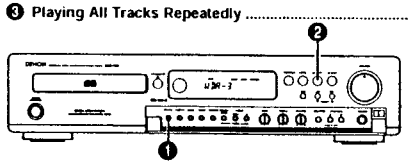
❷ Playing 1 Track Repeatedly — 1 TRACK REPEAT



① Press the REPEAT button once.
② Press the ⏮ or ⏭ button, and select the desired track.
③ Press the play button (►) to start play.

- When the specified track finishes playing, the pickup returns to the beginning of that track and play is repeated.
- If the REPEAT button is pressed once during play, the track will be played repeatedly.
- If the REPEAT button is pressed once during programmed play, the track will be played repeatedly.
- If the REPEAT button is pressed once while the disc is stopped, the "REPEAT 1" indicator lights and the 1 track repeat play mode is set.

❸ Playing All Tracks Repeatedly — ALL TRACKS REPEAT



① Press the REPEAT button twice.
② Press the play button (►) to start play.

- When the last track finishes playing, the pickup returns to the first track of the disc and play is repeated.
- If the REPEAT button is pressed twice during play, the disc will be played repeatedly.
- If the REPEAT button is pressed twice during programmed play, the program will be played repeatedly.
- If the REPEAT button is pressed twice while the disc is stopped, the "REPEAT ALL" indicator lights and the all tracks repeat play mode is set.

❹ Playing a Specific Section Repeatedly — SECTION REPEAT

Example: The CD has a total of 15 tracks

1st time	(1) Press the REPEAT button during CD play. TRACK 03 REPEAT 1	"REPEAT 1" lights up, and only that track is played repeatedly, and that track number lights.
1st time	(2) Press the REPEAT button before CD play. TRACK 15 REPEAT 1	"REPEAT 1" lights up, and the total number of tracks lights, and then ① the first track is repeated by pressing the play button ② when play is started by direct selection from the remote control or with the ⏭ or ⏮ button, only those selected tracks are played repeatedly.
2nd time	Press the REPEAT button before CD play or during CD play. REPEAT TRACK 03 REPEAT All	"REPEAT ALL" lights up, and the track numbers contained on the disc light up on the music calendar, and all tracks are played repeatedly.

Pressing the REPEAT button once again returns the plyer to regular CD play.

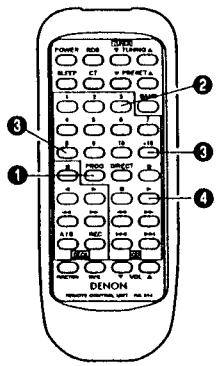
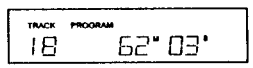
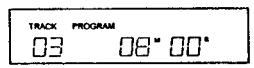
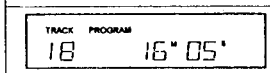
17

❺ Playing Certain Tracks in any Desired Order ..... PROGRAMMED SELECTION

(Perform this operation from the remote control unit only.)

Example: Programming track 3 to play first, track 18 to play second, on a CD with 18 tracks and a total playing time of 62 minutes, 3 seconds.

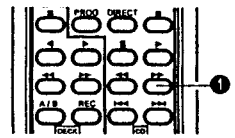
Setting and Playing the Program

1	Press the PROGRAM button.		
2	Set track 3 to play first.		 After 2 seconds The display when track 3 is set to play first Time of first track: 8 minutes, 00 seconds
3	Set track 18 to play second.		 After 2 seconds The display when track 18 is set to play second Total time of tracks 1 and 2: 16 minutes, 05 seconds
4	Press the play button.		The tracks start playing in the programmed order.

- The numbers of the programmed tracks go off once the tracks are played.
- "— — M — — S" appears on the display, if a track number of 21 or higher is set in the program.
- When a program is set during CD play after a direct selection, the track currently playing is set as the first track in the program.
- Up to 20 tracks of your choice from among track numbers 1 through 99 can be programmed with this CD player.
- If you attempt to set a track number that is greater than the number of tracks on the disc, that track number will not be displayed when the buttons are pressed.
- Programming is also possible when the disc tray is open. In this case, track numbers greater than the number of tracks on the disc can be programmed, but these are ignored when the disc is played.
- The entire program is cleared when the disc tray is opened (by pressing the ⏏ button).
- Other operations possible during programmed play:
  The quick search, pause, skip monitor, and other operations can be used during programmed play. To move to the beginning of the previous track with the quick search operation, press ⏮◀◀ once, then once again while the time display reads "00'00". To move to the beginning of the following track, press ▶▶⏭ once, regardless of the time display.
- Perform programming and canceling in the stop mode.
- Programming is also possible in the same way using the PROG button on the CD player. (In this case, use the ▶▶/⏭ button to select the track number, the PROG button as the memory button. In other words, first press the PROG button, next press the ▶▶/⏭ button to select the track number, then press the PROG button again to set the track in the memory. For the second track as well, press the ▶▶/⏭ button then the PROG button.)

❻ Moving to the Next Track During CD Play ..... QUICK SEARCH

(Perform this operation from the remote control unit.)

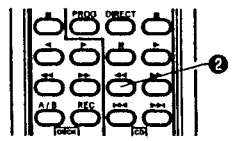


① Press the auto search forward button (▶▶).

- Each press of the auto search forward button (▶▶) moves the pickup to the beginning of following tracks.

❼ Moving Back to the Beginning of the Current Track During CD Play ..... QUICK SEARCH

(Perform this operation from the remote control unit.)



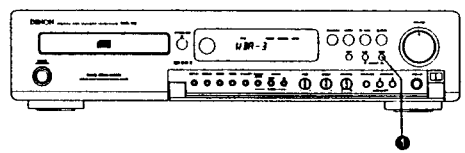
① Press the auto search backward button (◀◀).

- Each press of the auto search backward button (◀◀) during the search operation moves the pickup to the beginning of previous tracks.

❽ Searching for Tracks While Listening to the Sound ..... SKIP MONITOR

- Use this to skip through a disc listening to the sound at high speed.
  This function is convenient when searching for a certain section within a long track.
- Use the skip monitor function to find the desired position, then release the search button to start regular playback from there.

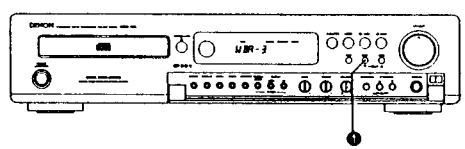
[1] Forward skip monitor



- The track number and elapsed playing time of the track being skipped through are indicated on the display.
- If the end of the last track on the disc is reached while pressing the search button, (⌋⌋) appears on the display and the skip monitor operation stops. To resume CD play, press the search backward button (⏮◀◀) until (⌋⌋) switches to the track number, then perform a different operation.

① During CD play, press and hold in the forward search button (▶▶⏭) to skip forward while listening to the sound.

[2] Backward skip monitor



- The track number and elapsed playing time of the track being skipped through are indicated on the display.
- If the beginning of the first track on the disc is reached while pressing the search button, (⌊⌊) appears on the display and the skip monitor operation stops. To resume CD play, press the search forward button (▶▶⏭) until (⌊⌊) switches to the track number, then perform a different operation.

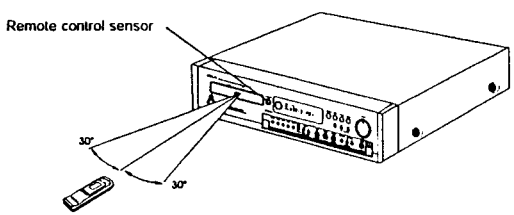
① During CD play, press and hold in the backward search button (⏮◀◀) to skip backward while listening to the sound.

If the forward or backward skip button is pressed during programmed CD play and released at a track which has not been programmed, the next programmed track will be played once that track has been played to the end.

12 REMOTE CONTROL UNIT

Cautions on Use

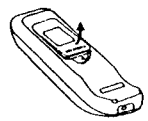
1. The RCD-100 is supplied with a remote control unit (RC-814) for system control.
2. Replace the batteries with new ones when the transmission distance possible with the remote control unit shortens.
3. For longer battery life, remove the batteries when not using the remote control unit for long periods.
4. When replacing batteries, use two new batteries. Never use an old battery with a new one.
5. Do not use two different types of batteries.
6. Do not heat batteries or take them apart.
7. Be careful that the remote control sensor is not exposed to direct sunlight or strong light from lighting fixtures.
8. The remote control sensor is located on the receiver. Point the remote control unit at the sensor, then press the buttons for the desired operation.
9. Operate the remote control unit within the range illustrated in the diagram.



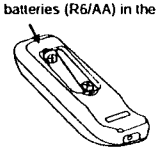
Remote control unit's transmission window

Inserting the Batteries

① Open the battery case lid on the back of the remote control unit.



② Insert the two batteries (R6/AA) in the proper direction.



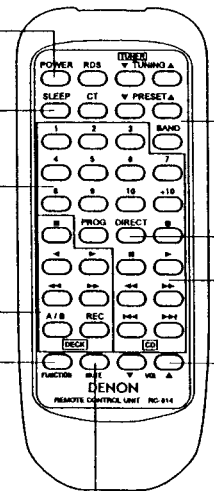
③ Set the battery case lid back in place.

▦ appears at the upper left corner of the receiver display when a signal is received.

- The remote control unit can be used at a distance of about 7 meters from the remote control sensor, but this distance will be shorter if there are obstacles inthe way or if the remote control is operated from an angle.

10. Do not press buttons on the remote control unit and on the main unit at the same time. Doing so will lead to a malfunction.
11. If ▦ appears on the receiver display due to incident light even though the remote control unit has not been operated, it is best to move the set or place it in a different direction. Even if this happens, it will not cause a malfunction with remote control unit.
12. When adjusting the volume continuously with the remote control unit, the volume adjustment will stop if the remote control unit is moved away from the remote control sensor. Should this happen, press the button again to continue changing the volume.

Button Names and Functions



POWER

Press this to switch on the power for the entire system or set the system to standby.

SLEEP

Press this to set the sleep timer.

Number buttons

After pressing TUNER, these buttons call up the preset stations.
When used with CD play, after pressing DIRECT or PROGRAM, these buttons specify the tracks to be played.

Operating the Cassette Decks

Stop button (■)
Press this to stop the tape deck.

Forward play button (►)
Press this to play back or record in the forward direction.

Reverse play button (◄)
Press this to play back or record in the reverse direction.

• REC button (recording button)
To set the recording mode when in the stop mode, press this button, then press either the " ►" or the " ◄" button. When pressed during the recording or recording pause mode, a blank section of approximately 5 seconds is created on the tape, after which the deck is set to the recording pause mode.

Rewind button (◄◄)
Press this to rewind the tape.

Fast-forward button (►►)
Press this to forward the tape.

A/B button
Press this to select the deck to be operated.

FUNCTION (input switching) button

Switches the function TUNER, CD, TAPE and MD/AUX.

MUTE

Press this button for -20 dB sound. Press again to return to the original setting.

CD Play

DIRECT button
Press for direct track selection of CD player.

PROGRAM button
Press for programmed selection of CD player.

Operating the CD Player

Pause button (▮▮)
Press to temporarily stop CD play. Press the play button ► to resume play.

Stop button (■)
Press to stop CD play.

Play button (►)
Press to start CD play.

Manual search backward button (◄◄)
Manual search forward button (►►)
Press these to quickly move backward or forward.

Backward skip monitor button (I◄◄)
Press during CD play to go back to the beginning of that track. Press the button again within 0.5 seconds to go back to the beginning of the previous track.

Forward skip monitor button (►►I)
Press during CD play to go forward to the beginning of the next track. Press the button again to go forward to the beginning of the track two tracks ahead.

VOLUME

Adjusts the volume. Press ▼ to lower the volume, and ▲ to raise it.

TUNER

- **CT (Clock Time) button**
  When the FM band has been set, a single press of this button will cause the clock display to appear for 2 seconds. Pressing the button again while the clock is displayed, enables the clock to be matched to the time of the RDS broadcast time service.
- Some stations which provide RDS broadcasts do not broadcast CT signals, in which case the time display cannot be corrected by pressing the CT button.

Press this button to listen to the preset stations.

- **BAND button**
  Use this to select the FM or AM band. When this button and number button is pressed in the standby condition, the power is automatically switched on.
- **TUNING buttons**
  Use these to tune in FM or AM stations.
- **PRESET buttons**
  Use these to select preset stations.
  When this button is pressed in the standby condition, the power is automatically switched on.
- **RDS (Radio Data System) button**
  This button is used for the RDS search, PTY search and TP search operations.

13 IMPORTANT INFORMATION

- **Head Cleaning**

After the cassette deck has been used for a while, powder from the tapes and dirt adhere to the head and lower the sound quality. *Use a head cleaning cassette tape to clean.*

NOTE:

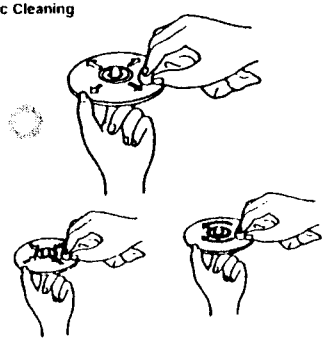
Some of the cleaning sets on the market have a strong polishing effect which can damage the head.

- **Head Demagnetizing**

The heads become magnetized after the deck has been used over a long period of time or if the heads are exposed to a magnetic field. This results in noise and reduced treble. In addition, there may be a reduction of the treble range of recorded tapes as well as noise produced on these tapes. When the heads become magnetized, use one of the cassette tape head demagnetizers (erasers) available on the market to demagnetize the heads.

- For details, read the operating instructions of the demagnetizer.

- **Disc Cleaning**



Dust, fingerprints, or spittle on the disc can cause noise or skipping.
If the disc is dirty or if the player does not work properly, clean the disc as follows:

- Hold the disc as shown in the diagram, with the signal surface facing up (and the labelled side facing down).
- Using a soft cloth, wipe the disc gently from the inside straight towards the edges (as shown by the arrows).

- Do not wipe from the edges towards the center, or around the disc as you would wipe records.
- Do not use hard cloths or rub the disc forcefully, since the signal surface is susceptible to scratches.

Never use the following to clean discs:

- Solvents such as benzene or alcohol
- Cleaners containing abrasives
- Record sprays or cleaners
- Anti-static products

14 SPECIFICATIONS

■ **Receiver**

- **Tuner**

Reception Frequency Range:	FM: 87.50 MHz to 108.00 MHz
	AM: 522 kHz to 1611 kHz
Receiving Sensitivity:	FM: 1.5 µV, 75 ohms (SN ratio 30 dB)
	AM: 20 µV (SN ratio 20 dB)
FM Stereo Separation:	40 dB (1 kHz)

- **Amplifier**

Rated Output Power:	45 W + 45 W (1 kHz, 4 ohm)
Jacks:	6.3 mm headphone jack
Bass Adjustment:	100 Hz ±8 dB
Treble Adjustment:	10 kHz ±8 dB
Loudness control:	100 Hz/10 kHz $^{+6dB}/_{+3dB}$
Jacks:	MD/AUX: Input jacks, recording output jacks
	TAPE: input jacks, recording output jacks
Dimensions (max.):	434 (W) x 94 (H) x 342 (D) mm (17-5/64" x 3-45/64" x 13-30/64")
Weight:	7.5 kg (16 lbs 8 oz)
Power Supply:	AC 230 V, 50 Hz
Power Consumption:	110 W

■ **CD Player**

Wow and Flutter:	Below measurable limits (±0.001 % W. Peak)
Sampling Frequency:	44.1 kHz
Light Source:	Semiconductor

■ **Remote Control Unit (RC-814)**

Type:	Infrared pulse
Number of Buttons:	40
Dimensions (max.):	525 (W) x 150 (H) x 18,3 (D) mm (2-1/16" x 5-8/9" x 12/16")
Weight:	100 g (Approx. 3,5 oz) (including batteries)

- Maximum dimensions include controls, jacks, and covers.
  (W) = width, (H) = height, (D) = depth
- For improvement purposes, specifications and functions are subject to change without advanced notice.

15 TROUBLESHOOTING

1. Check that the connections are proper.
2. Check that you are operating the system according to the instructions in the manual.

Check the following table if the system does not seem to be working properly.
If the problem is not solved after checking these points carefully, the system may be malfunctioning. Switch off the power and contact your store of purchase.

	Symptom	Cause	Measures	Page
Common	Power does not come on when ON/STANDBY button pressed	Power cord not plugged into outlet.	Plug cord into outlet properly.	8
	No sound produced from speakers.	VOLUME control set to minimum. Headphones are plugged in. Speaker cables not connected to speaker terminals. The Relay is affected by clicking noise at intervals.	Turn VOLUME control clockwise (◠) Disconnect headphones. Connect speaker cables properly. Short-circuit with connection cord near speaker terminal. Check connection cord again.	9 9 8 8
	Treble not produced. Orientation of sound field not clear.	Speaker polarities (+ and -) not matched.	Connect speaker cables properly.	8
	Source other than the desired one is heard.	Function selector button not set properly.	Set to desired function.	9
Receiver	Hissing noise heard during FM reception.	Antenna not pointed in proper direction. Signals weak..	Change direction of antenna. Install outdoor antenna.	8 8
	Hissing or scratchy noise heard during AM reception.	Noise from TV, etc., or interference from other stations.	Turn off TV. Change position of loop antenna. Install outdoor antenna.	- - 8
	Hum noise heard during AM reception.	Signals coming over power cord are modulated by power source frequency.	Plug in cord in opposite direction. Install outdoor antenna.	8 8
CD Player	Disc loaded but total number of tracks not displayed.	Disc loaded upside-down. Disc dirty. Non-standard disc loaded.	Reload disc. Clean disc. Replace with standard disc.	16 20 16
	Operation not performed when buttons pressed, or playback stops in middle of track.	Disc loaded upside-down. Foreign object in disc holder. Disc dirty. Disc scratched.	Reload disc. Remove disc and remove foreign object. Clean disc. Replace with non-scratched disc.	16 16 20 -
	Sound skips.	Dust, fingerprints, or spittle on disc. Disc scratched. Player set in shaky, unstable place.	Clean disc. Replace with non-scratched disc. Set player in stable place.	20 - -

Normal operation may not be possible if there is dirt or other substances on the surface of the internal objective lens or sensor.
These parts must be cleaned periodically depending on the place of installation.
For details, contact your store of purchase.

Dew (Condensation) Phenomenon

Dew (water droplets) may form on the lens of the internal optical system or on the disc, or on the rotating parts of the tape deck in situations such as the following:

- Soon after a heater is put on.
- When the set is placed in a steamy or damp room.
- When the set is moved from a cold place to a warm room.

Avoid using ultrasonic humidifiers nearby.
If ultrasonic humidifiers are used nearby, the calcium, etc., included in the water may be scattered into the air, causing white dust to accumulate on the surface of the objective lens or sensor, resulting in improper operation.

When Condensation Forms

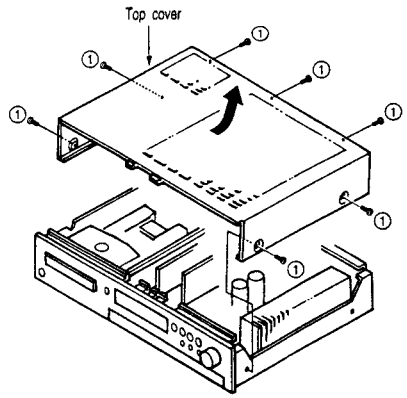
The signals of the disc may not be read and this product will not operate properly. To remove the condensation, take out the disc and switch on the power. The condensation will evaporate within 1 hour and the set will operate normally.

This system consists of precision components using microprocessors. Avoid using it in places where there is much external noise. If used is such places, the system may not operate properly, but this is not a problem with the system. If the system does not operate properly, try performing the desired operation again.

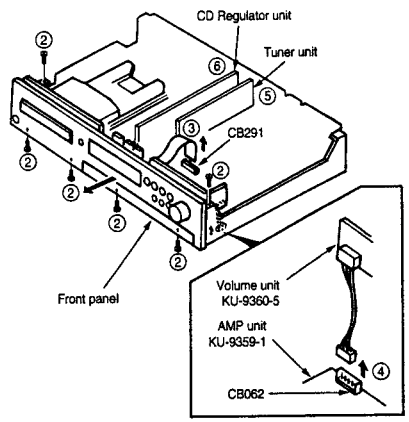
DISASSEMBLY PROCEDURESTS
(Follow these procedures in reverse order to reassemble.)

1. Removing the top cover and front panel

① Remove the seven screws from the top cover.



② Remove the six screws from the front panel.
③ Disconnect the CB291 connector from the main unit.
④ Disconnect the CB032, CB041 and CB062 connectors from the main unit.
⑤ Disconnect the CB052 connector from the tuner unit.
⑥ Disconnect the CB081 and CB091 connectors from the CD unit.



2. Removing the circuit boards

Volume Unit (KU-9360-5)

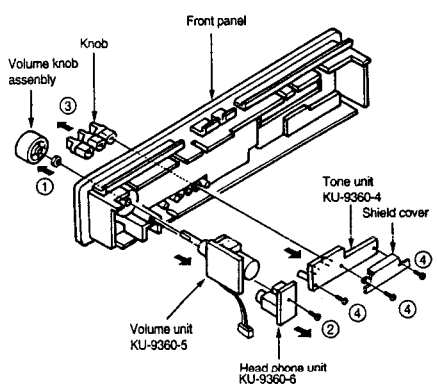
① Remove the volume knob and nut from the front panel.

Headphone Unit (KU-9360-6)

② Remove the screw from the headphone unit.

Tone Unit (KU-9360-4)

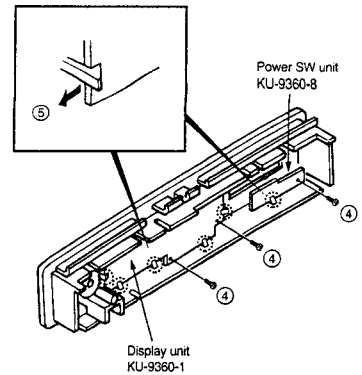
③ Remove the knob from the front panel.
④ Remove the three screws from the tone unit.



Display Unit (KU-9360-1)

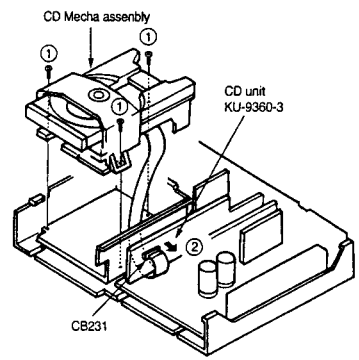
Power SW Unit (KU-9360-8)

④ Remove the three screws from the display and power switch units.
⑤ Detach the six hooks from the display and power switch units.



2. Removal of the CD Mechanism Unit

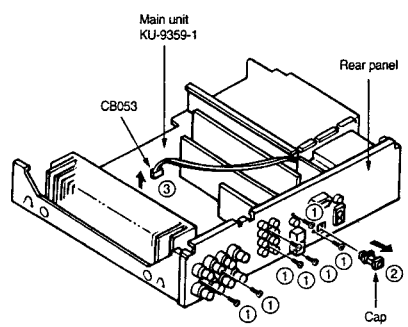
① Remove the three screws from the CD mechanism unit.
② Disconnect the CB034 and CB231 connectors from the CD unit.



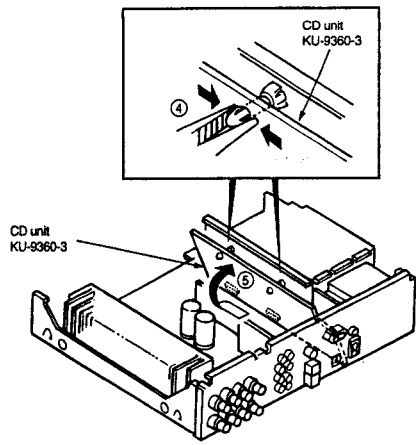
CD & Regulator Unit (KU-9360-3)

AMP Unit (KU-9359-1)

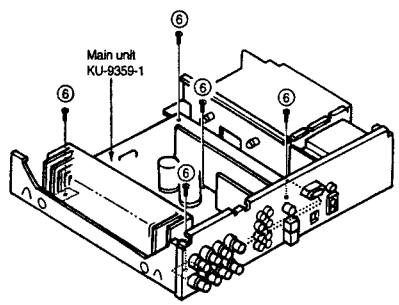
① Remove the seven screws from the rear panel.
② Remove the cap from the CD & regulator unit.
③ Disconnect the CB053 connector from the amplifier unit.



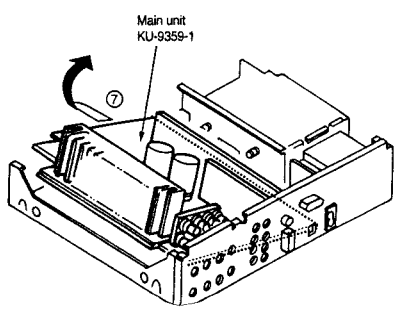
④ Remove the two holders from the CD unit.
⑤ Remove the CD unit in the direction of the arrow.



⑥ Remove the five screws from the main unit.



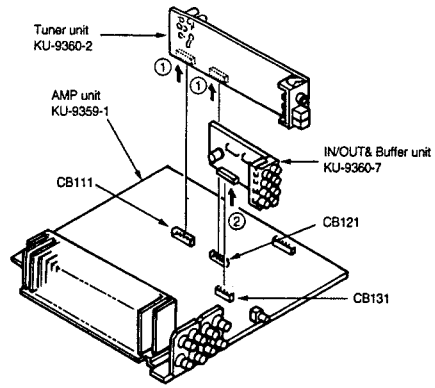
⑦ Remove the main unit in the direction of the arrow.



Tuner Unit (KU-9360-2)

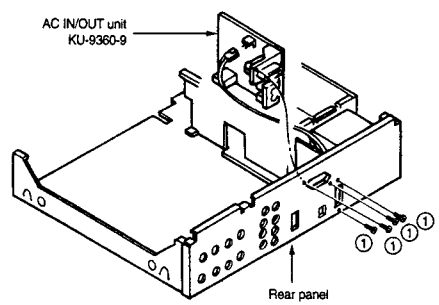
Input & Buffer Unit (KU-9360-7)

① Remove the tuner unit from the CB111 and CB121 connectors connected to the main unit, in the direction of the arrow.
② Remove the audio unit from the CB131 connector connected to the main unit, in the direction of the arrow.

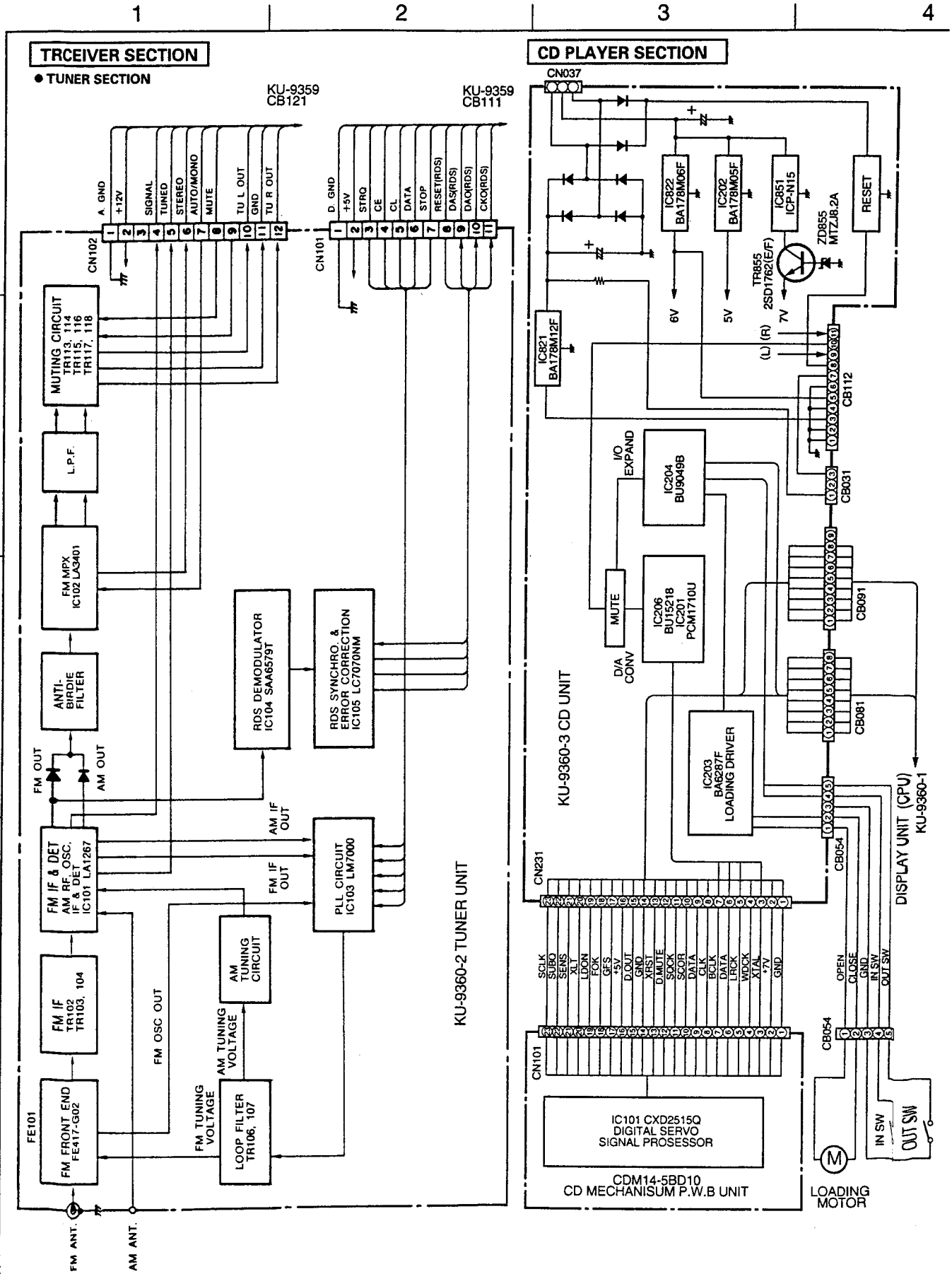


AC IN/OUT unit (KU-9360-8)

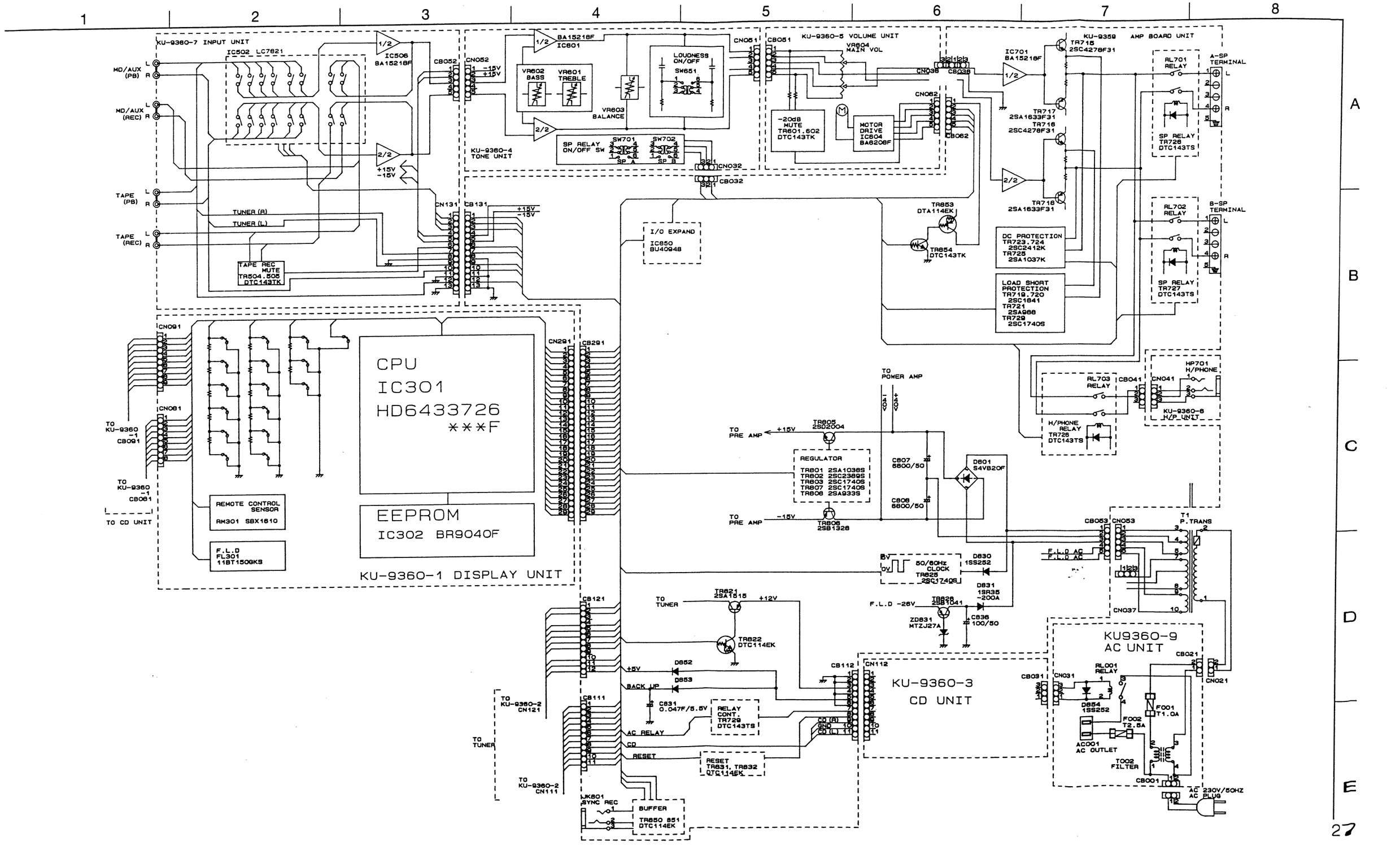
① Remove the four screws from the rear panel.



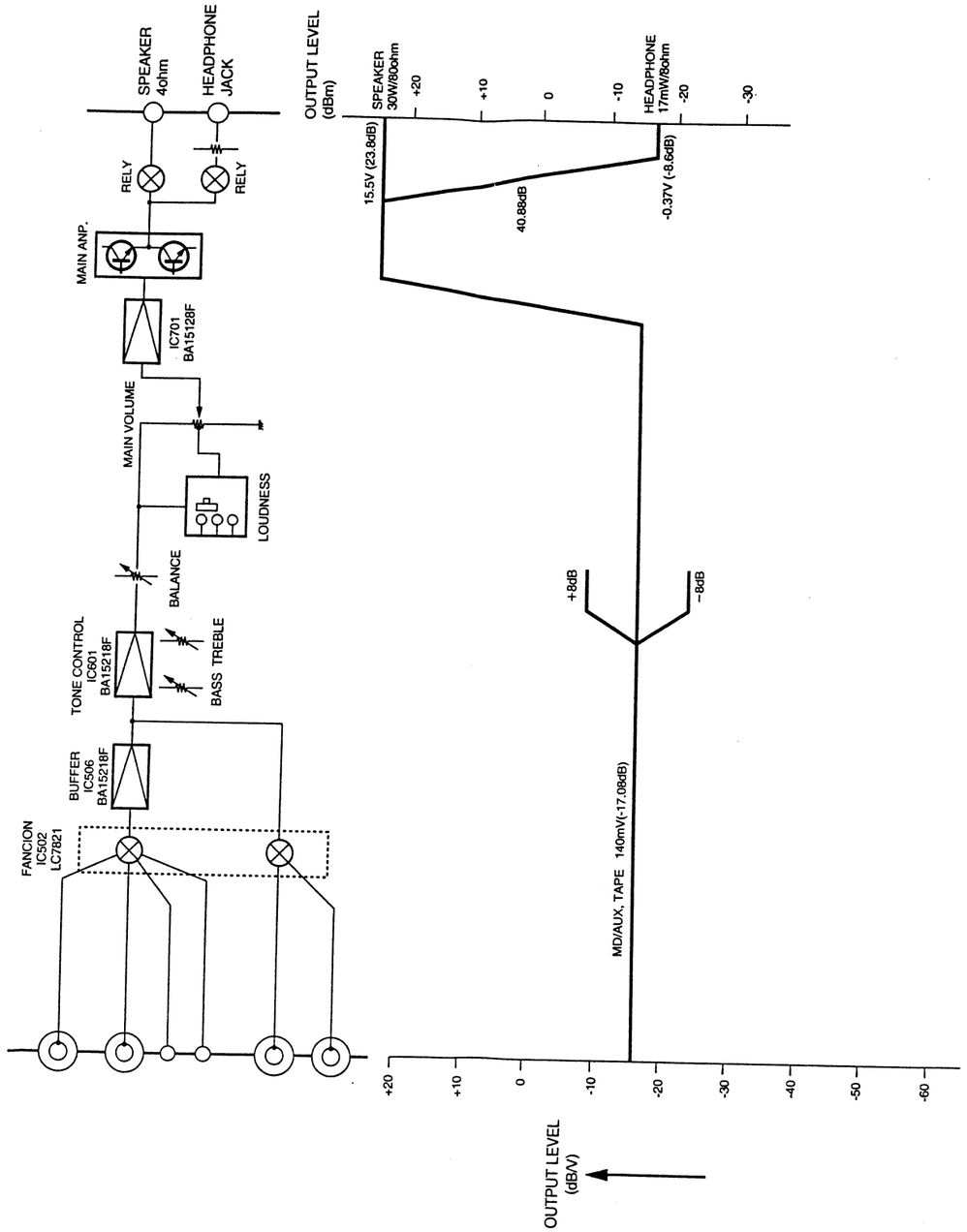
BLOCK DIAGRAM



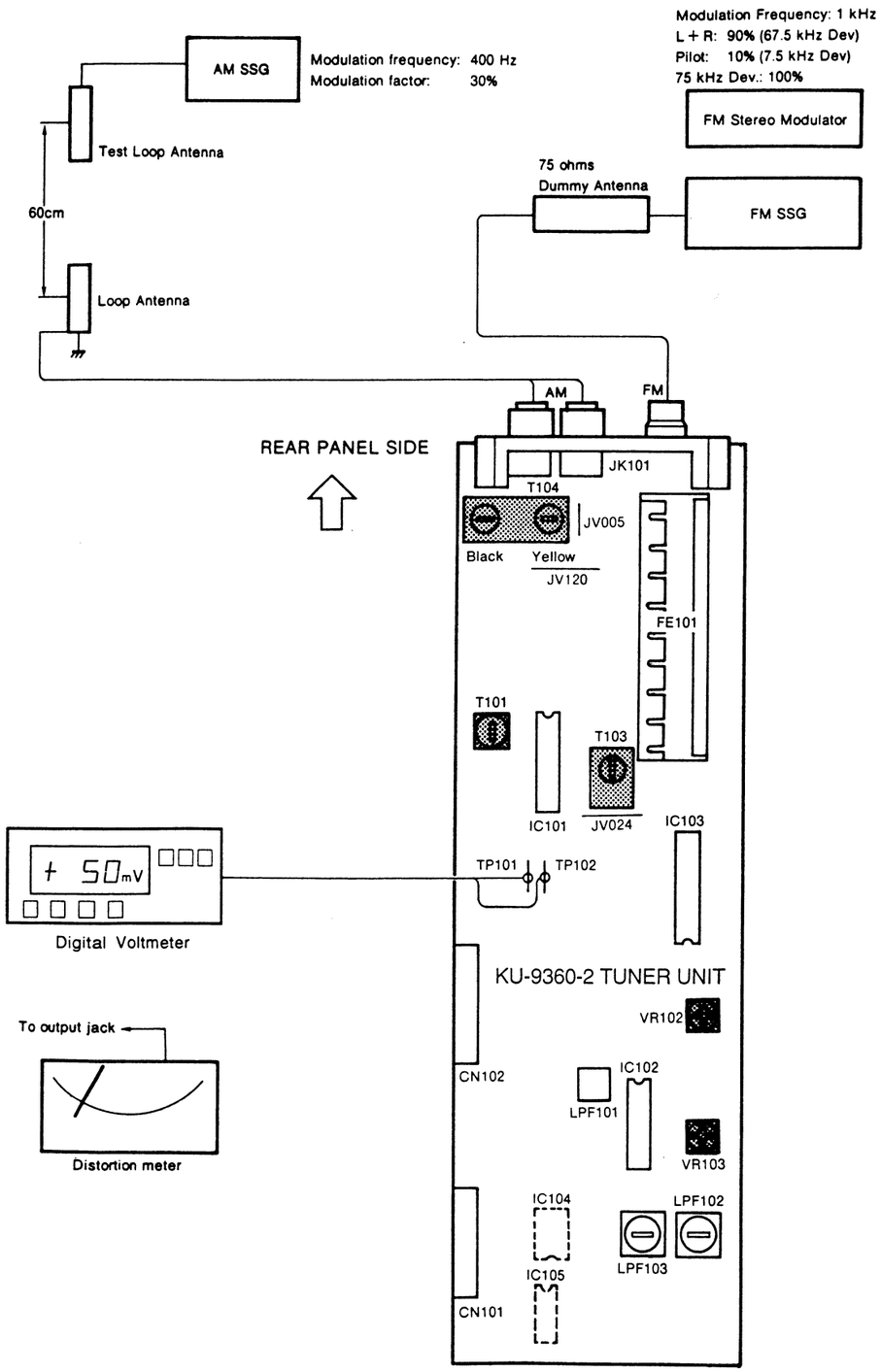
AMP. BLOCK DIAGRAM



LIVEL DIAGRAM



ADJUSTMENTS



1. FM adjustment (BAND button: FM, MONO/AUTO button: AUTO,

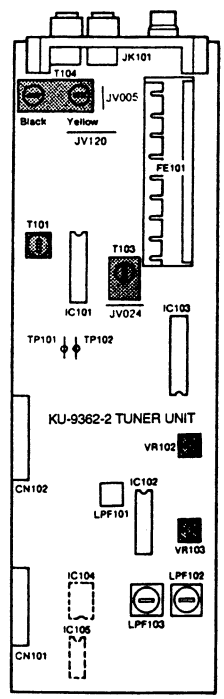
Step	Adjustment item	Tuning point (channel setting)	Input					Output		Adjustment location	Setting value	Notes
			Measuring Instrument	Frequency	Input level	Modulation	Connection location	Measuring instrument	Connection location			
1	FM DC balance	98.00MHz	FM S.G.	98.00MHz	60dB μ	1kHz 75kHz DEV	FM antenna terminal	Digital volt meter	TP101 TP102	T101	0±50mV	Perform with monaural modulation signal
2	Muting level	98.00MHz	FM S.G.	98.00MHz	20dB	1kHz 75kHz DEV	FM antenna terminal	Check for the lighting of TUNED	Output jack	VR102	Input level 20dB μ±4dB	(Level at which TUNED lights up) Level at which the output is provided Turn VR102 fully clockwise and adjust with VR102. It is not possible to adjust with VR102.
3	Stereo separation	"	FM stereo modulator FM S.G.	"	60dB μ	1kHz L or R: 67.5kHz DEV Pilot; 7.5kHz DEV	"	VTVM Oscilloscope	"	VR103	Minimum R.ch. Output	Perform with L.ch. Input of FM stereo modulator

2. AM adjustment (BAND button: AM)

Note: The AM IFT and MW ANT./OSC. coil are adjusted individually and normally do not require adjustment.

1	IF	Clear frequency (without a broadcast)	AM IF sweep	990kHz	Level at which AGC is not applied	–	AM antenna terminal	Oscilloscope	⊕ IC101 Pin ⑭ ⊖ JV024	T103	Waveform maximum and symmetry	
2	Band edge	522kHz	–	–	–	–	–	Digital voltmeter	⊕ JV120 ⊖ JV005	T104 Black	1.2V±0.2V	
		1611kHz								–	Approx. 7.5V	No place to adjust
3	Tracking	603kHz	AM S.G.	603kHz	Level at which ACG is not applied	400Hz 30%	Loop antenna	VTVM	Output terminal	T104 Yellow	Maximum output	

KU-9360-2 TUNER UNIT (Component Side)



CONFIRMING METHOD OF SERVO

A microcomputer adopted to this unit has the service programs so as to perform confirming more easily with the operation buttons.
Digital servo adopted to this unit is became automatic adjustment status in focus gain and tracking gain.

1. Actuating the Service Program

Disconnect 15P system connector of the main unit, and while pressing the ▶ PLAY and ⏏ OPEN/CLOSE buttons at the same time, switch on the system power. The power will be supplied automatically in 2 to 3 seconds, the display of the receiver will indicate " 01 ", and the system will enter the service mode.
NOTE: Once the service program starts the operation buttons cannot be used for normal operation.

2. Operation Function at Service Program Actuation

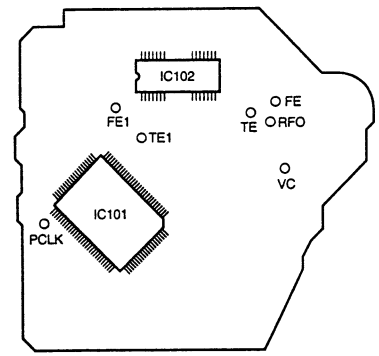
Button Operation	Operation Function	Explanation
⏏ OPEN/CLOSE	Opens or closes disc holder button.	• Open or closes only when disc is stopped. • Operate other keys after open or close.
■ STOP	Stops system function.	• Displays track number 01. • Press when adjustment completed or do it again.
▶ PLAY	Starts Focus servo and disc turns when the PLAY button is pushed while track number 01 is displayed.	• Push to check the tracking offset. • When completed, displays track number 02 → 03 (02: automatic adjustment).
	Starts Focus servo, Tracking servo, Slide servo and Spindle servo when the PLAY button is pushed while track number 03 is displayed.	• Push to check the HF level. • When completed, displays track number 04.
II PAUSE	Displays a result of Focus gain automatic adjustment when the PAUSE button is pushed while track number 03 is displayed.	• When completed, Display shows: TRACK TIME 1- XX XX TIME display shows automatic adjustment value. Displays: 01 27~00 01 or 00 EE
	Displays a result of Tracking gain automatic adjustment when the PAUSE button is pushed while the result of the automatic focus gain adjustment is displayed.	• When completed, Display shows: TRACK TIME 2- XX XX TIME display shows automatic adjustment value. Displays: 01 27~00 01 or 00 EE
Other Buttons	Unable to obtain normal function.	• Never attempt to operate the buttons other than the above. • If the buttons are erroneously pressed, promptly turn OFF the power switch.

(Caution)
• During the service program is in operation, do not use remote control.

3. Confirming Method

(1) Required Measuring Equipment
1) Dual-trace oscilloscope
2) Test disc: CA-1094

(2) Check Point
CD Mechanical unit PWB (pattern view)



(3) Confirming Procedure
1) Actuate the service program.
2) Check the value of Focus gain automatic adjustment.
3) Check the value of Tracking gain automatic adjustment.
4) Check for Tracking offset.
5) Finish the service program and return the mode to normal operation (turn ON the power switch in normal manner).
6) Check for HF level.

(4) Confirming Focus Gain
1) Press [▶ PLAY] button. (Track No. indication 03)
2) Press [II PAUSE] button. (Track No. indication 1-)
3) Check for automatic adjustment value.
Automatic adjustment value: 00 82 ~ 00 34 (normal temperature) (Test disc: CA-1094)
01 04 ~ 00 28 (0°C~40°C)

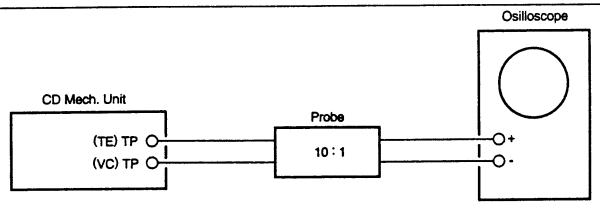
Note: As it is a possibility of abnormality in pick-up when automatic adjustment value is 00 EE or less than 00 27 execute the confirmation for pick-up according to pick-up replacement standard.
If there is no abnormality in pick-up as described in pick-up replacement standard notes, no problem will occur for disc playback even though the automatic adjustment value is 00 EE or less than 00 27

(5) Confirming Tracking Gain
1) After checking the focus gain in (4) press [II PAUSE] button. (Track No. indication 2-).
2) Check for automatic adjustment value.
Automatic adjustment value: 00 81 ~ 00 23 (normal temperature) (Test disc: CA-1094)
01 03 ~ 00 18 (0°C~40°C)

Note: As it is a possibility of abnormality in pick-up when automatic adjustment value is 00 EE or less the 00 22 execute the confirmation for pick-up according to pick-up replacement standard.
If there is no abnormality in pick-up as described in pick-up replacement standard notes, no problem will occur for disc playback even though the automatic adjustment value is 00 EE or less than 00 22

(6) Confirming Tracking offset (E/F Balance)

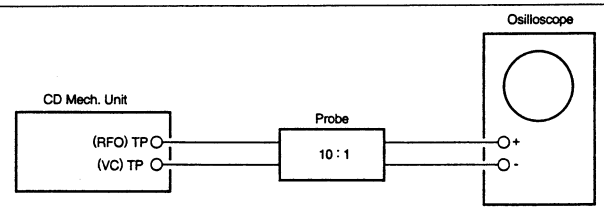
Connection

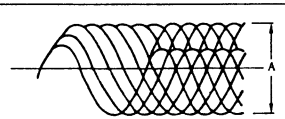
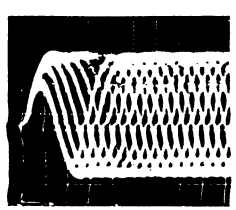


Oscilloscope		Check	Step
V	H	(Oscilloscope)	1. Push [▲ OPEN/CLOSE] button and load disc holder reference disk. 2. Push [▲ OPEN/CLOSE] button and close disc holder. 3. Push [▶ PLAY] button to turn disc. (Displays track number 03) 4. Short (+)(−) of oscilloscope and check the base line. 5. Confirm that upper and lower amplitude of the waveform is symmetric against 0V.
0.1 v/div	1~2 ms/div		

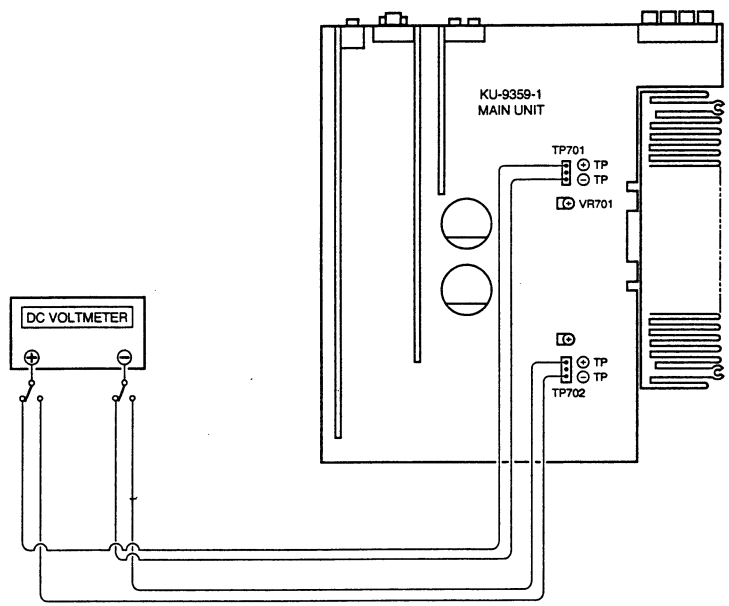
(7) Confirming HF Level

Connection



Oscilloscope		Check	Step
V	H	(Oscilloscope)	1. Push the [▶ PLAY] button while track number 03 is displayed. (Displays track number 04) 2. Check HF level of oscilloscope. 3. Confirm that the waveform is in good shape. (eye pattern in center must be able to discriminate clearly.)
50 mv/div or 20 mv/div	0.2 µs/div or 0.5 µs/div	 A = 1.36±0.2 Vp-p
• Set input mode to ALTERNATE or CHOPPER.			

METHOD OF ADJUSTMENTS



DLING CURRENT

(1) Set controls as follows.

ON/STANDBY Switch → on ( )

VOLUME Control → 0 (min.)

SPEAKERS → off ( )

Temperature → 15℃~30℃(59°F~86°F)

VR701 an VR702 of the KU-9359-1 (Main Unit) → MIN. ( )

(2) Connect DC Voltmeter to the T.P Lch and T.P Rch of the KU-9359-1.

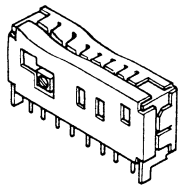
(3) Turn the Power Switch on and rotate VR701 clockwise so that the DCVoltmeter reads 2.5 mV !910.2 mV DC at the T.P Lch. Follow the same procedure to VR702 for T.P Rch.

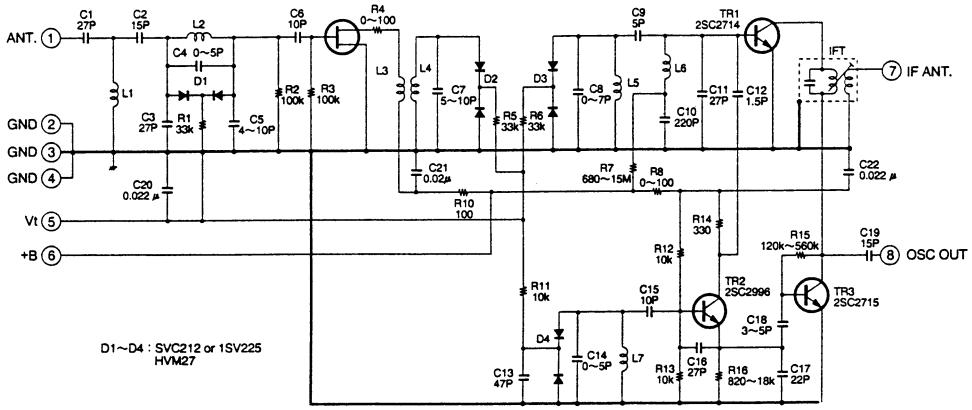
(4) Warm up for three minutes, the readjust VR701 and VR702 so that the DC Voltmeter reads 2.5 mV !910.5 mV DC.

(5) Warm up for 10 minutes, then readjust VR701 and VR702 so that the DC Voltmeter reads 2.5 mV !910.5 mV DC.

Front End
Part No.: 216 0079 005

No.	Name	No.	Name
1	ANT	5	Vt
2	GND	6	+B
3	GND	7	IF OUT
4	GND	8	OSC OUT





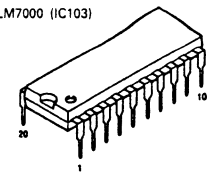
D1~D4 : SVC212 or 1SV225
HVM27

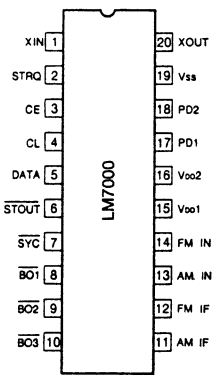
NOTES
1. TERMINAL NUMBER REFFER TO OVERALL APPEARANCE.
2. RECEIVING FREQUENCY. 87.5~108 MHz.
3. INPUT IMPEDANDE. 75 OHM.
4. OUTPUT IMPEDANCE. 300 OHM.
5. SUPPLY VOLTAGE. +B 12 V.
6. TUNING VOLTAGE. Vt 1.2 min~9.0 max V.

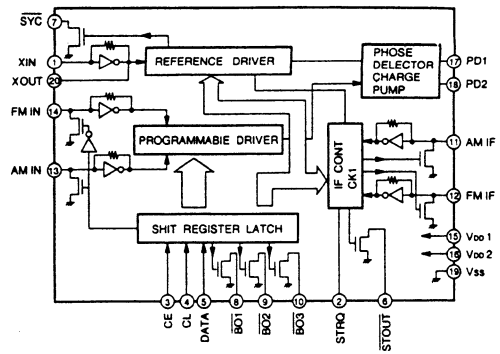
SEMICONDUCTORS

• IC's

LM7000 (IC103)



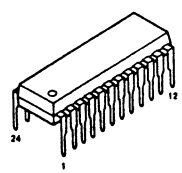


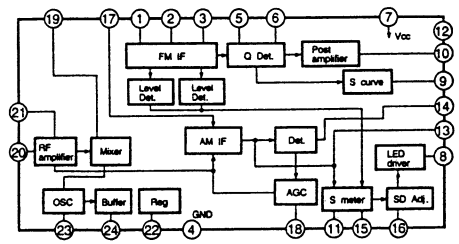


Pin Description

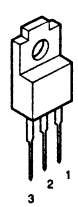
$\overline{SYC}$	: Clock (400 kHz) for the controller
XIN, XOUT	: X'tal oscillator (7.2 MHz) with built-in feedback resistor
FM IN, AM IN	: Local oscillator signal input
CE, CL, DATA	: Data input
$\overline{BO1}$, $\overline{BO2}$, $\overline{BO3}$	: Band data output. $\overline{BO1}$ can be set as the time base output (8 Hz).
STRQ	: IF counter request input
$\overline{STOUT}$	: Auto research stop signal output
$V_{DD}1$, $V_{DD}2$, V_{SS}	: Power supply ($V_{DD}2$ is a back-up power supply)
AM IF, FM IF	: IF signal input
PD1, PD2	: Charge pump output

LA1267 (IC101)

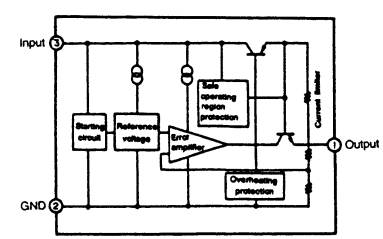




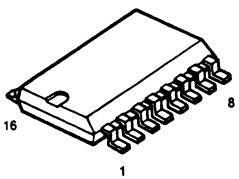
BA178M05 (IC202) +5V
BA178M06 (IC822) +6V
BA178M12 (IC821) +12V

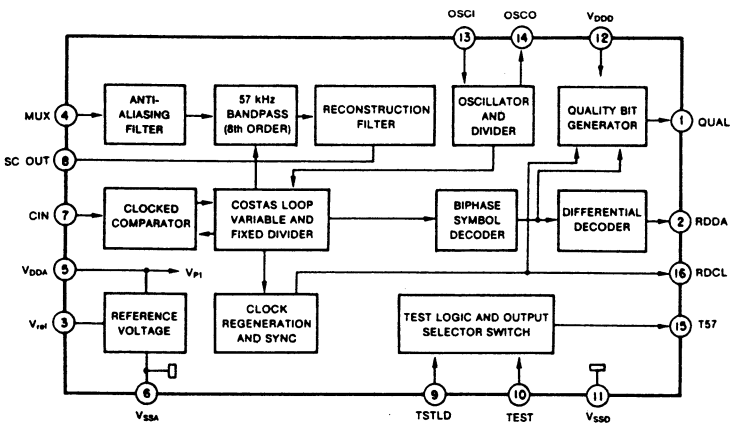


1 : Output
2 : GND
3 : Input



SAA6579T (IC104)



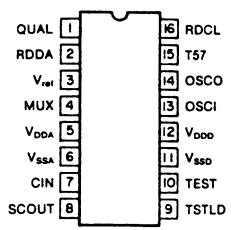


Block diagram and application circuit.

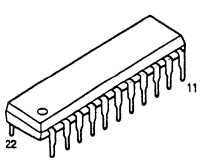
Pin Description

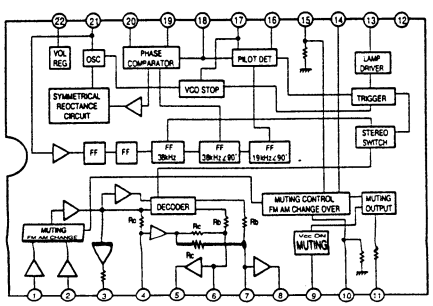
SYMBOL	PIN	DESCRIPTION
QUAL	1	quality indication output
RDDA	2	RDS data output
Vref	3	reference voltage output (0.5 V_{DDA})
MUX	4	multiplex signal input
V_{DDA}	5	+5 V supply voltage for analog part
V_{SSA}	6	ground for analog part (0 V)
CIN	7	subcarrier input to comparator
SCOUT	8	subcarrier output of reconstruction filter
TSTLD	9	test control
TEST	10	test enable
V_{SSD}	11	ground for digital part (0 V)
V_{DDD}	12	+5 V supply voltage for digital part
OSCI	13	oscillator input
OSCO	14	oscillator output
T57	15	57 kHz clock signal output
RDCL	16	RDS clock output

Pin configuration

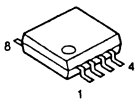


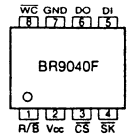
LA3401 (IC102)





BR9040F (IC203)



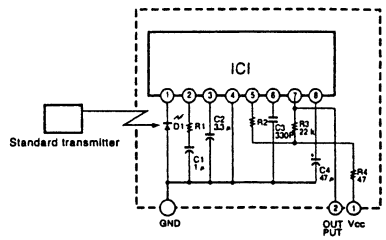


Pin Description

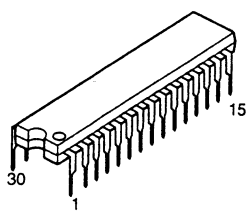
Pin No.	Pin Name	Input/Output	Description
1	R/$\overline{B}$	Output	READY, $\overline{BUSY}$ status signal output
2	Vcc	—	Connected to the power supply
3	$\overline{CS}$	Input	Chip select input
4	$\overline{SK}$	Input	Serial data clock input
5	DI	Input	Operation code, address, and serial data input
6	DO	Output	Serial data output
7	GND	—	Reference voltage of all inputs and outputs; 0 V
8	$\overline{WC}$	Input	Write control input

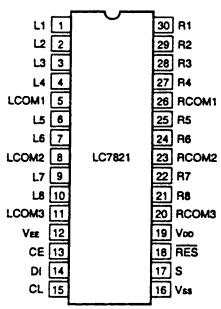
Equivalent Circuit and Measurement Circuit

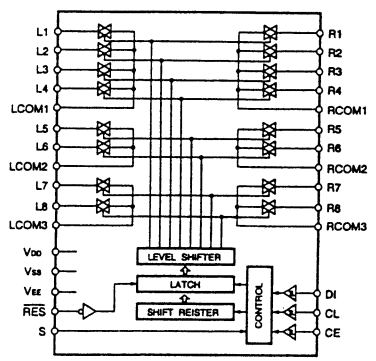
IC1: CX20106A chip
D1: PIN photodiode chip
C1, C2, and C4: Aluminum electrolytic capacitor
C3: SL characteristics, ±5%
R1: Resistor for gain adjustment
R2: Use ±1% resistor for fo adjustment
R (except for above): ±5%



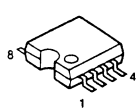
LC7821 (IC502)

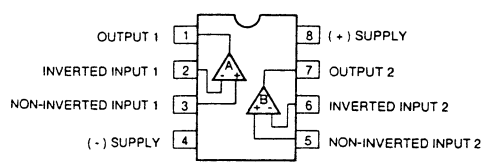




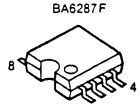


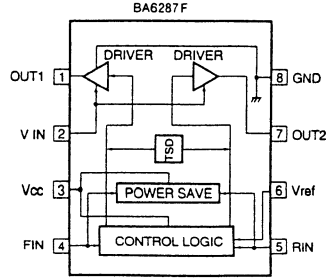
BA15218F (IC506,601,701)





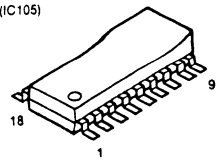
BA6287F



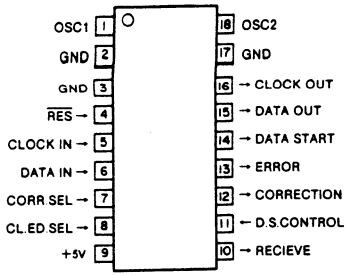


RCD-100

LC7070NM (IC105)



Pin Arrangement

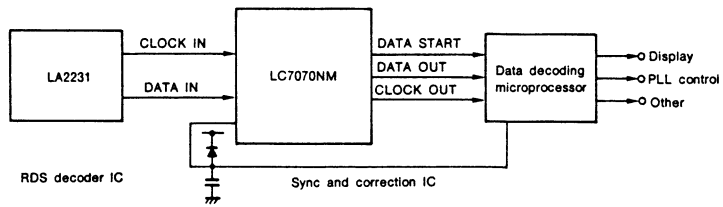


• Pin Description

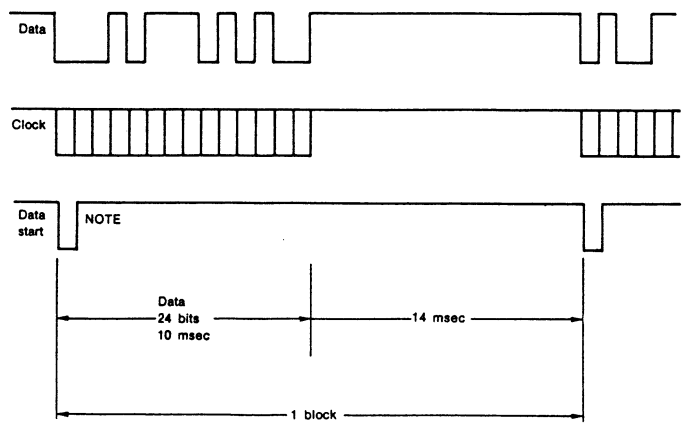
Symbol	Pin No.	I/O	Function / Details	At Time of Reset
OSC1 OSC2	1 18	Input Output	· 4 MHz ceramic oscillator connection.	
CLOCK IN	5	Input	· RDS (LA2231) demodulation clock input.	"H" output
DATA IN	6	Input	· RDS (LA2231) demodulation data input.	"H" output
CORR. SEL	7	Input	· Error correction on/off selection input. · Sets the IC to correct errors in the RDS demodulation data or to output the data without correction. When input is 0 : No corrections are made When input is 1 : Corrections are executed	"H" output
CL. ED. SEL	8	Input	· Serial data clock polarity selection input. When input is 0 : Serial data output is enabled at the rise of the ouptut clock. (Serial data output changes at the fall of the output clock.) When input is 1 : Serial data output is enabled at the fall of the output clock. (Serial data output changes at the rise of the output clock.) **NOTE:** Set at the time of $\overline{\text{RES}}$ input.	"H" output
D.S. CONTROL	11	Input	· Block data start signal control input. When input is 0 : Data start signal is output for all blocks. When input is 1 : Data start signal is output for only the second block.	"H" output
RECEIVE	10 (NC)	Output	· Output during RDS data reception. · After the completion of sync detection, there is a low-level, output while the serial data is being output. There is a high-level output at other times. · Open drain output.	"H" output
CORRECTION	12 (NC)	Output	· Output with or without error correction. · There is a low-level output when the output data of the serial data output have been corrected or when correction is not possible. There is a high-level output when correction has not been applied. · Open drain output.	"H" output
ERROR	13 (NC)	Output	· Presence of error output. · There is a low-level output when the output data of the serial data output has an error and correction is not possible. There is a high-level output when there is no error or when the error has been corrected. · Open drain output.	"H" output
DATA START	14	Output	· Block data start signal of the serial data output. Open drain output: LC7070N and LC7070NM Output with pull-up resistor: LC7071NM	"H" output

Symbol	Pin No.	I/O	Function / Details	At Time of Reset
DATA OUT	15	Output	· Data output of the serial data output. Open drain output: LC7070N and LC77070NM Output with pull-up resistor: LC7071NM	"H" output
CLOCK OUT	16	Output	· Clock output of the serial data output. Open drain output: LC7070N and LC77070NM Output with pull-up resistor: LC7071NM	"H" output
$\overline{\text{RES}}$	4	Input	· System reset input. · Reset and restart is accomplished by inputting the low level for 4 or more clock cycles.	

Structure of the RDS Data Processing System

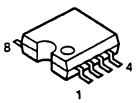


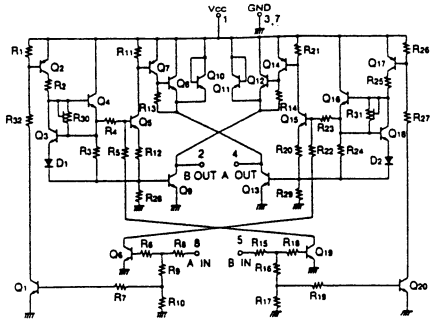
Serial Data Output Timing Chart



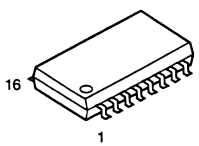
NOTE: Using the D.S. CONTROL input, only the second block among the entire 4 blocks of RDS data can be switched between the data start output and the total blocks' data start output.

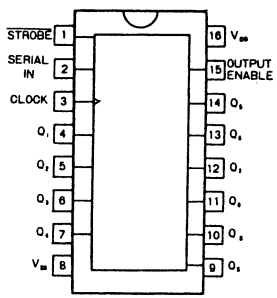
BA6207F (IC601)

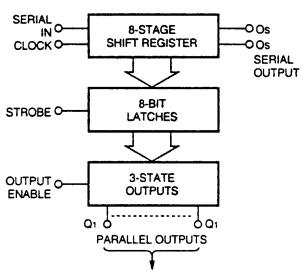




BU4094BF(IC204,850)





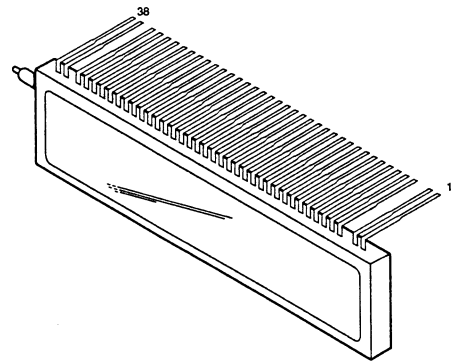


Truth Table

CLOCK	OUTPUT ENABLE	$\overline{\text{STROBE}}$	SERIAL IN	Parallel Output		Serial Output	
				Q_1	Qn	Qs	Qs
⎍	H	H	L	L	Qn-1	Q_7	NC.
⎍	H	H	H	H	Qn-1	Q_7	NC.
⎍	H	L	X	NC.	NC.	Q_7	NC.
⎍	L	X	X	Z	Z	Q_7	NC.
⎍	H	X	X	NC.	NC.	NC.	Qs
⎎	L	X	X	Z	Z	NC.	Qs

NC: No Change Z: High impedance X: Don't Care

FLUORECENT DISPLAY TUBE (11-BT-150GK)



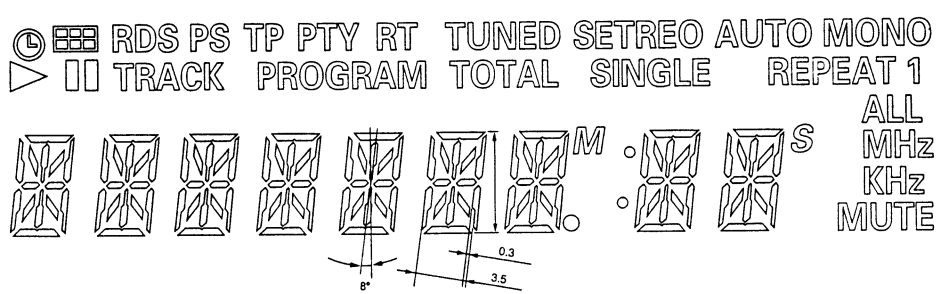
PIN CONNECTION

PIN NO	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
CONNECTION	F2	F2	NP	NP	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	NC	NC	11G	3B	3B	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	F1	F1

NOTE 1) Fl,F2·····Filament
2) NP ·····No. Pin
3) NC ·····No. Connection
4) DL ·····Datum Line
5) 1G~11G···Grid

11-BT-150GK
OUTER-DIMENSION

PATTERN DETAIL

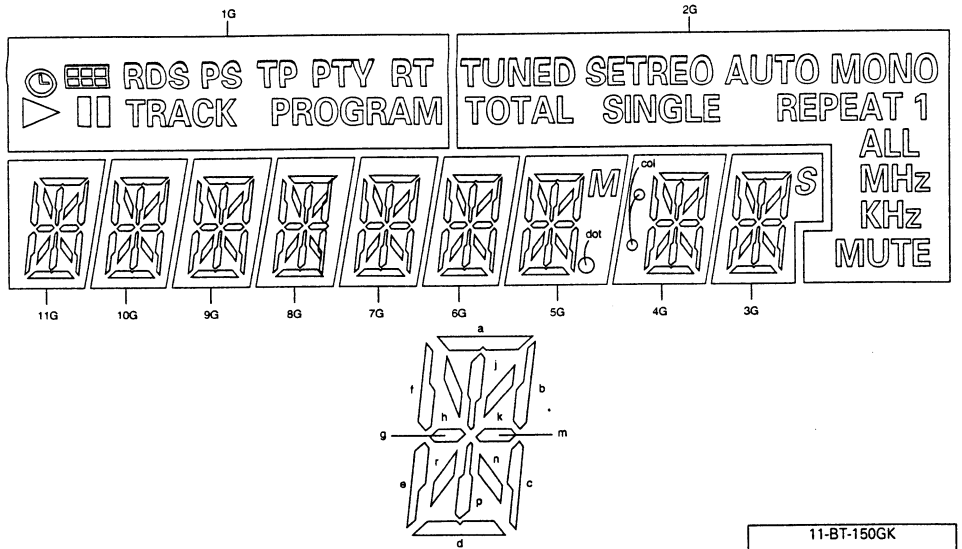


COROR OF ILLUMINATION

Reddish Orange (Rsh.O x=0.645 y=0.355 ····· ⊏⊐ Portion of above pattern
Green (G.x=0.235 y=0.405 ····· Other portions

11-BT-150GK
PATTERN DETAIL
COLOR OF ILLUMINATION

GRID ASSIGNMENT



(11G~3G)

11-BT-150GK
GRID ASSIGNMENT

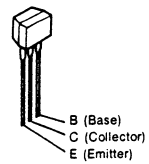
ANODE CONNECTION

	11G~6G	5G	4G	3G	2G	1G
P1	a	a	a	a	TOTAL	▷
P2	h	h	h	h	SINGLE	▯▯
P3	j	j	j	j	REPEAT	TRACK
P4	k	k	k	k	1	PROGRAM
P5	b	b	b	b	ALL	🕒
P6	f	f	f	f	TUNED	▦
P7	m	m	m	m	STEREO	RDS
P8	g	g	g	g	AUTO	PS
P9	c	c	c	c	MONO	TP
P10	e	e	e	e	MHz	PTY
P11	r	r	r	r	KHz	RT
P12	p	p	p	p	MUTE	—
P13	n	n	n	n	—	—
P14	d	d	d	d	—	—
P15	—	M	col	S	—	—
P16	—	dot	—	—	—	—

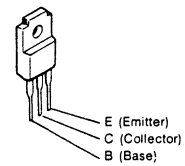
11-BT-150GK
ANODE CONNECTION

● Transistors

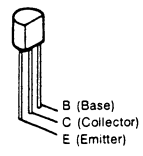
2SA1038S (S/E)
2SC2389S (S/E)
2SA933S (S)
2SC1740S (S)



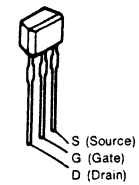
2SD1762 (E/F)



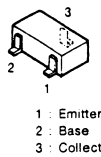
2SA988 (E/F)
2SA1515 (R)
2SC1815 (Y)
2SC184 (E/F)



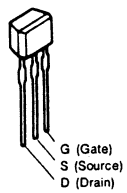
2SK365 (BL/GR)



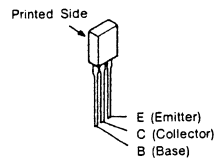
2SC2412K (S), (LN)



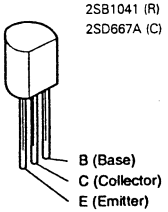
2SK161 (GR)



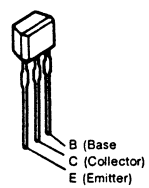
2SB1328 (P)
2SD2004 (P)



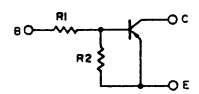
2SB647A (C)
2SB1041 (R)
2SD667A (C)



DTA114ES } PNP Type
DTA144ES
DTC114ES
DTC144ES
DTC124TS
DTC323TS } NPN Type
DTC124GS
DTC143TS

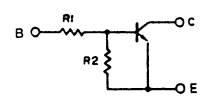


PNP Type



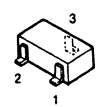
	R1	R2
DTA114ES	10k ohm	10k ohm
DTA144ES	47k ohm	47k ohm

NPN Type



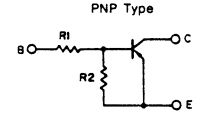
	R1	R2
DTC114ES	10k ohm	10k ohm
DTC144ES	47k ohm	47k ohm

DTA114EK PNP Type
DTC114EK } NPN Type
DTC323TK
DTC143TK



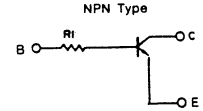
1 : Emitter
2 : Base
3 : Collector

PNP Type



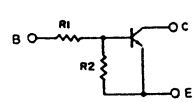
	R1	R2
DTA114EK	10k ohm	10k ohm

NPN Type



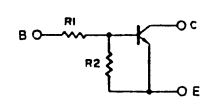
	R1
DTC143TK	4.7k ohm
DTC124TS	22k ohm
DTC323TS	2.2k ohm

NPN Type



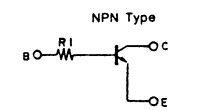
	R2
DTC124GS	22k ohm

NPN Type



	R1	R2
DTC114EK	10k ohm	10k ohm

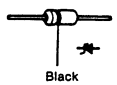
NPN Type



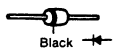
	R1
DTC323TK	2.2k ohm

● Diodes

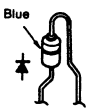
MTZJ3.3A
MTZJ3.6A
MTZJ6.8A
MTZJ8.2B
MTZJ12A
MTZJ22A



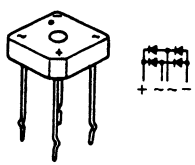
1SS252



1SR35-200A

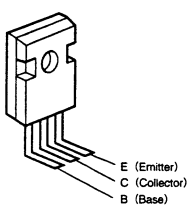


S4VB20F (D711)



● Power Transistors

2SA1633F3(E/F)
2SC4278F31(E/F)



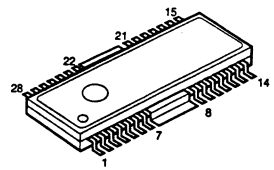
● IC PROTECTORS

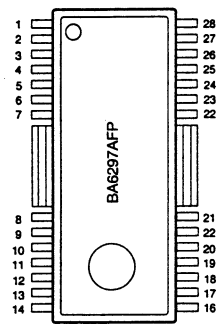
ICP-N15 (IC253)

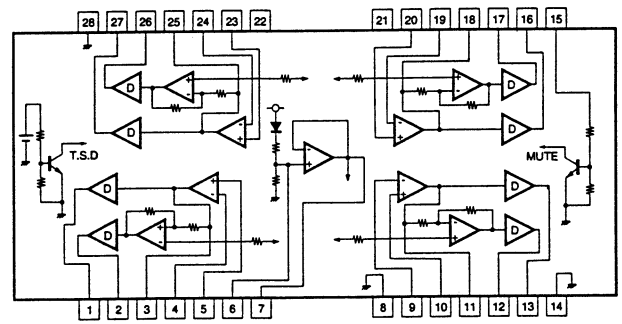
SEMICONDUCTORS

● IC's

BA6297AFP







T.S.D: thermal short down
D: driver buffer

BA6297AFP Terminal Function

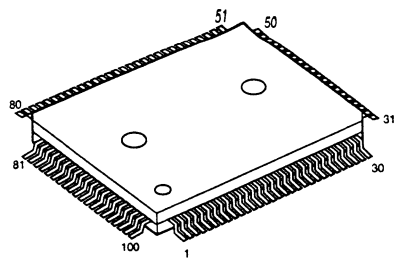
Pin No.	Symbol	I/O	Function
1		O	CH1 output terminal (+).
2		O	CH1 output terminal (−).
3		O	CH1 Pre-Amplifier output terminal.
4		I	CH1 Pre-Amplifier negative input terminal.
5		I	CH1 Pre-Amplifier positive input terminal.
6			Internal Vref-Amplifier resistor bias terminal.
7		O	Internal Vref-Amplifier output terminal.
8	GND		Vref-Amplifier and constant current ground.
9		I	CH2 Pre-Amplifier positive input terminal.
10		I	CH2 Pre-Amplifier negative input terminal.
11		O	CH2 Pre-Amplifier output terminal.
12		O	CH2 output terminal (−).
13		O	CH2 output terminal (+).
14	GND		CH2 and CH3 drive ground.

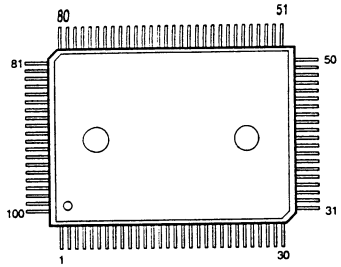
Pin No.	Symbol	I/O	Function
15		I	Driver mute control terminal.
16		O	CH3 output terminal (+).
17		O	CH3 output terminal (−).
18		O	CH3 Pre-Amplifier output terminal.
19		I	CH3 Pre-Amplifier negative input terminal.
20		I	CH3 Pre-Amplifier positive input terminal.
21	Vcc		CH2 and CH3 driver power supply.
22	Vcc		CH1 and CH4 driver power supply.
23		I	CH4 Pre-Amplifier positive input terminal.
24		I	CH4 Pre-Amplifier negative input terminal.
25		O	CH4 Pre-Amplifier output terminal.
26		O	CH4 output terminal (−).
27		O	CH4 output terminal (+).
28	GND		CH1 and CH4 driver ground.

Note: Each driver output polarity is reference to Pre-Amplifier output terminal polarity (+).

RCD-100

CXD2515Q

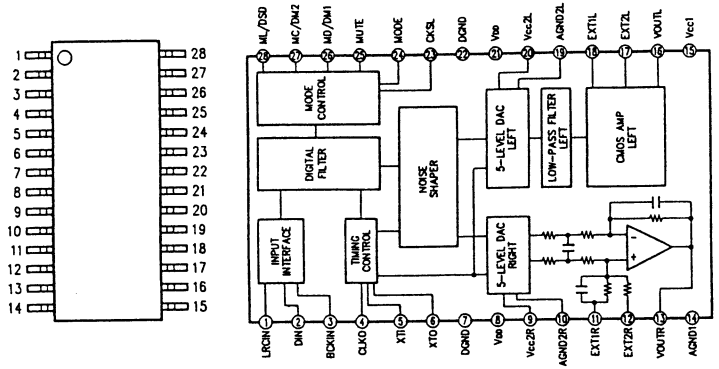




CXD2515Q Terminal Function

Pin No.	Symbol	I/O	Function
1	SRON	O	Sled drive output signal.
2	SRDR	O	Sled drive output signal.
3	SFON	O	Sled drive output signal.
4	TFDR	O	Tracking drive output signal.
5	TRON	O	Tracking drive output signal.
6	TRDR	O	Tracking drive output signal.
7	TFON	O	Tracking drive output signal.
8	FFDR	O	Focus drive output signal.
9	FRON	O	Focus drive output signal.
10	FRDR	O	Focus drive output signal.
11	FFON	O	Focus drive output signal.
12	VCOO	O	Osc. circuit output for analog EFM PLL.
13	VCOI	I	Osc. circuit output for analog EFM PLL.
14	TEST	I	Test terminal, normal GND.
15	DVss	–	Digital ground.
16	TES2	I	Test terminal, normally GND.
17	TES3	I	Test terminal, normally GND.
18	PDO	O	Change pump output for analog EFM PLL.
19	VPCO	O	PLL charge pump output for variable pitch.
20	VCKI	I	Clock input from external VCO for variable pitch.
21	AVD2	–	Analog power supply.
22	IGEN	I	Power supply terminal for OP amplifier.
23	AVS2	–	Analog ground.
24	ADII	I	A/D converter input terminal.
25	ADIO	O	OP amplifier output terminal.
26	RFDC	I	RF signal input.
27	TE	I	Tracking error signal input.
28	SE	I	Sled error signal input.
29	FE	I	Focus error signal input.
30	VC	I	Middle point voltage input terminal.
31	FILO	O	Filter output for master PLL.
32	FILI	I	Filter input for master PLL.
33	PCO	O	Charge pump output for master PLL.
34	CLTV	I	VCO control voltage input for master.
35	AVSI	–	Analog ground.
36	RFAC	I	EFM signal input.
37	BIAS	I	Asymmetry circuit constant current output.
38	ASY1	I	Asymmetry comparator voltage input.
39	ASY0	O	EFM full swing output.
40	AVDI	–	Analog power supply.
41	DV_{DD}	–	Digital power supply.
42	ASYE	I	Asymmetry circuit ON/OFF.
43	PSSL	I	Mode shift input of audio data output.
44	WDCK	O	48 bit slot D/A interface word clock.
45	LRCK	O	48 bit slot D/A interface LR clock.
46	DATA	O	DA16 output at PSSL=1, 48 bit slot serial data at PSSL=0.
47	BCLK	O	DA15 output at PSSL=1, 48 bit slot bit clock at PSSL=0.
48	64DATA	O	DA14 output at PSSL=1, 64 bit slot serial data at PSSL=0.
49	64BCLK	O	DA13 output at PSSL=1, 64 bit slot bit clock at PSSL=0.
50	64LRCK	O	DA12 output at PSSL=1, 64 bit slot LR clock at PSSL=0.
51	GTOP	O	DA11 output at PSSL=1, GTOP output at PSSL=0.
52	XUGF	O	DA10 output at PSSL=1, XUGF output at PSSL=0.
53	XPLCK	O	DA09 output at PSSL=1, XPLCK output at PSSL=0.
54	GFS	O	DA08 output at PSSL=1, GFS output at PSSL=0.
55	RFCK	O	DA07 output at PSSL=1, RFCK output at PSSL=0.
56	C2PO	O	DA06 output at PSSL=1, C2PO output at PSSL=0.
57	XRAOF	O	DA05 output at PSSL=1, XRAOF output at PSSL=0.
58	MNT3	O	DA04 output at PSSL=1, MNT3 output at PSSL=0.
59	MNT2	O	DA03 output at PSSL=1, MNT2 output at PSSL=0.
60	MNT1	O	DA02 output at PSSL=1, MNT1 output at PSSL=0.
61	MNT0	O	DA01 output at PSSL=1, MNT0 output at PSSL=0.
62	XTAI	I	X'tal Osc. circuit input.
63	XTAO	O	X'tal Osc. circuit output.
64	XTSL	I	X'tal select input terminal.
65	DVss	–	Digital ground.
66	FSTI	I	2/3 cycle input of Pin 62, 63
67	FSTO	O	2/3 cycle output of Pin 62, 63
68	C4M	O	4.2336 MHz output.
69	C16M	O	16.9344 MHz output.
70	MD2	I	Digital-Out ON/OFF control terminal.
71	DOUT	O	Digital-Out output terminal.
72	EMPH	O	Playback disc emphasis mode output.
73	WFCK	O	WFCK output.
74	SCOR	O	Sub code sync output terminal.
75	SBSO	O	Sub P~W serial output.
76	EXCK	I	Clock input for SBSO read out.
77	SUBQ	O	Sub Q 80 bit output.
78	SQCK	I	Clock input for SQSO read out.
79	MUTE	I	Mute shift terminal.
80	SENS	O	SENS output.
81	XRST	I	System reset.
82	DIRC	I	Using at 1 track jump.
83	SCLK	I	Clock for SENS serial data read out.
84	DFSW	I	DFCT shift terminal.
85	ATSK	I	Anti-shock terminal.
86	DATA	I	Serial data input from CPU.
87	XLAT	I	Latch input from CPU.
88	CLOK	I	Serial data transfer clock input from CPU.

PCM1710U

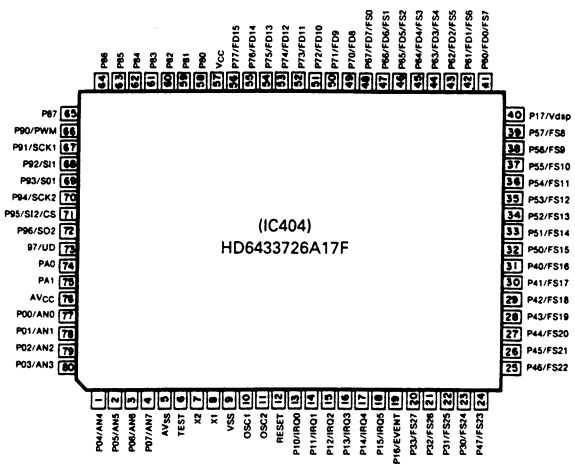


PCM1710U Terminal Function

Pin No.	Symbol	I/O	Function
1	LRCIN	I	Reference sample rate clock input (fs).
2	DIN	I	Data input.
3	BCKIN	I	Data bit clock input.
4	CLKO	O	Osc, buffer (XTI inverting) output.
5	XTI	I	Osc, input* (external clock input).
6	XTO	O	Osc, output*.
7	DGND		Digital ground.
8	Vdd		Digital power supply (+5V).
9	VCC2R		Rch analog DAC power supply (+5V).
10	AGND2R		Rch analog DAC ground.
11	EXT1R		Rch amplifier common output.
12	EXT2R		Rch amplifier bias output.
13	VOUTR		Rch voltage output.
14	AGND		Analog ground.
15	VCC		Analog power supply (+5V).
16	VOUTL		Lch voltage output.
17	EXT2L		Lch amplifier bias output.
18	EXT1L		Lch amplifier common output.
19	AGND2L		Lch analog DAC ground.
20	VCC2L		Lch analog DAC power supply (+5V).
21	Vdd		Digital power supply (+5V).
22	DGND		Digital ground.
23	CKSL		System clock selection. H: 384 fs L: 256 fs
24	MODE		Operation mode selection (H/Serial)
25	MUTE		Mute control signal (H: OFF, L: ON).
26	MD/DM1		Control data at serial/De-emphasis at parallel
27	MC/DM2		Control bit clock at serial/De-emphasis at parallel.
28	ML/DSD		Control data wode at serial/Double speed at parallel.

* If XTI input signal is from external clock, XTO terminal must be in OFF status. All input terminal with pull up resister.

MICROPROCESSOR DOCUMENTATION
HD6433726A17F (IC404)



1. Overview

The functions of this microcomputer are made up of the following three pillars.

a. Tuner functions

These functions perform the required control for the reception of FM and AM broadcasts.

b. Auto functions

Positioned at the heart of the system stereo, the auto functions perform serial communications with other components (such as the deck, CD and amplifier) to provide overall control.

These functions decoder the signals from the remote control and send them to each component of the system.

c. Timer functions

Counts the clock of the 24 hour display.

Operates the three kinds of timers: Every Day, Once and Sleep.

Note 1) When the power cord is plugged in while pressing both keys [PRESET DOWN] and [MEMO], the following tracking adjustment frequencies are automatically stored in the preset memory. Use these for adjustment, etc.

	P1	P2	P3	P4	P5	P6
AM	522kHz	603kHz	999kHz	1098kHz	1404kHz	1611kHz

	P11	P12	P13	P14	P15
FM	87.50MHz	89.00MHz	98.00MHz	100.10MHz	108.00MHz

Note 2) When the power cord is plugged in while pressing both keys [MEMO] and [PRESET UP], the entire memory is initialized and the microcomputer operates from the beginning of the program. If there are any problems in the frequency presetting or the time display, follow this procedure for proper start-up.

Note 3) When the power cord is plugged in while pressing both keys [MEMO] and [TIMER], the entire LCD will alternatively light up and down. To return to the normal mode from this mode, unplug the power cord, and then plug it back in.

Note 4) When the power cord is plugged in while pressing both keys [MEMO] and [TUNING UP], can set the power on without DENON display. To return to the normal mode from this mode, unplug the power cord, and then plug it back in.

2. Receiving Band Table

Band	Receiving frequency	Local oscillator frequency	IF	Frequency division ratio	Comparison frequency	Step frequency	Other
FM	87.50~108.00MHz	98.20~118.70MHz	10.7MHz	1	25kHz	50kHz	
AM	522~1611kHz	972~2061kHz	450kHz	–	9kHz	9kHz	

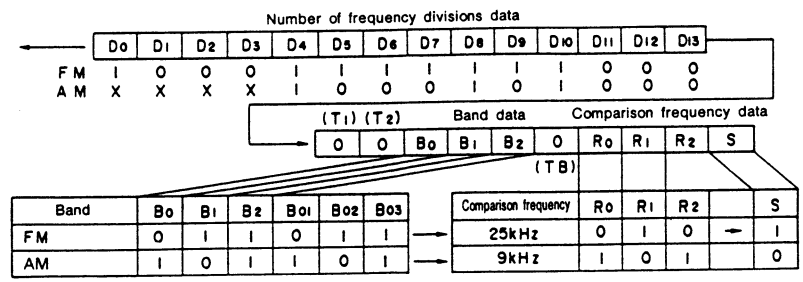
3. Signals sent to the LM7000 Programmable Divider

a. Signals to the programmable divider are sent from 3 sources: CE OUT, CLOCK OUT, and DATA OUT.

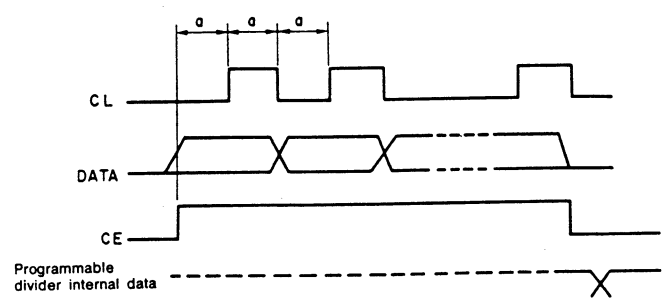
b. The programmable divider takes in DATA at CLOCK ⌐¯, when CE equals 1.

c. The data is a 24-bit serial signal which is taken in to the programmable divider from the LSB.
(At the AM setting, D_0 through D_3 are ignored, so that D_4 becomes the LSB.)

d. The data is made up of the number of frequency divisions data, the band data, and the comparison frequency data. (See diagram below.)



e. Timing for sending
a = 2.5 μsec



• Pin Description (HD6433726A17F)

Pin	Pin No.	IO	TY	OP	DT	RS	IN	AC	Function Name	Use	Function Definition
1	P04/AN4	I	C	Eu	Lv	Z	—	H	KRO IN		Key input read pin
2	P05/AN5	I	C	Eu	Lv	Z	—	H	KR1 IN		
3	P06/AN6	I	C	Eu	Lv	Z	—	H	KR2 IN		
4	P07/AN7	I	C	Eu	Lv	Z	—	H	KR3 IN		
5	AVss	—	—	—	—	—	—	—	GND		Ground
6	TEST	I	—	—	—	—	—	—	TEST		Microprocessor test pin. Connected to ground.
7	X2	O	—	—	—	—	—	—	SUB CLOCK		32.768 kHz oscillator pin
8	X1	I	—	—	—	—	—	—	SUB CLOCK		32.768 kHz oscillator pin
9	Vss	—	—	—	—	—	—	—	GND		Ground
10	OSC1	I	—	—	—	—	—	—	SYS CLOCK		4 MHz oscillator pin
11	OSC2	O	—	—	—	—	—	—	SYS CLOCK		4 MHz oscillator pin
12	RESET	I	—	—	—	—	—	L	RESET IN		System reset input pin
13	P10/IRQ0	I	C	Eu	Eg	—	—	—	50/60 IN		AC pulse input for power supply sync and also power outage detection input.
14	P11/IRQ1	I	C	Eu	Eg	—	—	L	REMOCON IN		Remote control signal interrupt input
15	P12/IRQ2	I	C	Eu	Eg	—	—	H	SCOR IN	CD	SCOR detection interrupt input
16	P13/IRQ3	I	C	Eu	Eg	—	—	L	SENSE IN	CD	SENSE detection interrupt input
17	P14/IRQ4	I	C	Eu	Eg	—	—	L	DATA ST IN	TUNER	RDS data fetch start interrupt input
18	P15/IRQ5	I	C	Eu	Lv	—	—	L	PROTECT IN	AMP.	Protect operation detection input. Protect = L
19	P16/EVENT	I	C	Eu	Lv	—	—	L	OPEN IN	CD	CD loader open position detection input. Open = L
20	P33/FS27	I	C	Eu	—	—	—	H	K3 IN		Selection switch input
21	P32/FS26	I	C	Eu	—	—	—	H	K2 IN		Selection switch input
22	P31/FS25	I	C	Eu	—	—	—	H	K1 IN		Selection switch input
23	P30/FS24	I	C	Eu	—	—	—	H	K0 IN		Selection switch input
24	P47/FS23	O	P	Ed	—	Z	L	H	P0		Fluorescent display segment drive output
25	P46/FS22	O	P	Ed	—	Z	L	H	P1		Fluorescent display segment drive output
26	P45/FS21	O	P	Ed	—	Z	L	H	P2		Fluorescent display segment drive output
27	P44/FS20	O	P	Ed	—	Z	L	H	P3		Fluorescent display segment drive output
28	P43/FS19	O	P	Ed	—	Z	L	H	P4		Fluorescent display segment drive output
29	P42/FS18	O	P	Ed	—	Z	L	H	P5		Fluorescent display segment drive output
30	P41/FS17	O	P	Ed	—	Z	L	H	P6		Fluorescent display segment drive output
31	P40/FS16	O	P	Ed	—	Z	L	H	P7		Fluorescent display segment drive output
32	P50/FS15	O	P	Ed	—	Z	L	H	P8		Fluorescent display segment drive output
33	P51/FS14	O	P	Ed	—	Z	L	H	P9		Fluorescent display segment drive output
34	P52/FS13	O	P	Ed	—	Z	L	H	P10		Fluorescent display segment drive output
35	P53/FS12	O	P	Ed	—	Z	L	H	P11		Fluorescent display segment drive output
36	P54/FS11	O	P	Ed	—	Z	L	H	P12		Fluorescent display segment drive output
37	P55/FS10	O	P	Ed	—	Z	L	H	P13		Fluorescent display segment drive output
38	P56/FS9	O	P	Ed	—	Z	L	H	P14		Fluorescent display segment drive output
39	P57/FS8	O	P	Ed	—	Z	L	H	P15		Fluorescent display segment drive output
40	P17/Vdisp	I	—	Eu	—	—	—	L	CLOSE IN	CD	CD loader close position detection input. Closed = L
41	P60/FD0/FS7	O	P	Ed	—	Z	L	H	G11	CD	Fluorescent display digit drive output and also key scan signal output.
42	P61/FD1/FS6	O	P	Ed	—	Z	L	H	G10	CD	Fluorescent display digit drive output and also key scan signal output.
43	P62/FD2/FS5	O	P	Ed	—	Z	L	H	G9	CD	Fluorescent display digit drive output and also key scan signal output.
44	P63/FD3/FS4	O	P	Ed	—	Z	L	H	G8	CD	Fluorescent display digit drive output and also key scan signal output.
45	P64/FD4/FS3	O	P	Ed	—	Z	L	H	G7	CD	Fluorescent display digit drive output and also key scan signal output.
46	P65/FD5/FS2	O	P	Ed	—	Z	L	H	G6	CD	Fluorescent display digit drive output and also key scan signal output.
47	P66/FD6/FS1	O	P	Ed	—	Z	L	H	G5	CD	Fluorescent display digit drive output and also key scan signal output.
48	P67/FD7/FS0	O	P	Ed	—	Z	L	H	G4	CD	Fluorescent display digit drive output and also key scan signal output.
49	P70/FD8	O	P	Ed	—	Z	L	H	G3	CD	Fluorescent display digit drive output and also key scan signal output.
50	P71/FD9	O	P	Ed	—	Z	L	H	G2	CD	Fluorescent display digit drive output and also key scan signal output.
51	P72/FD10	O	P	Ed	—	Z	L	H	G1	CD	Fluorescent display digit drive output and also key scan signal output.
52	P73/FD11	O	P	Ed	—	Z	H	L	SYREC OUT	CD	Sync record start acknowledge output. L = Sync Record OK
53	P74/FD12	O	P	Ed	—	Z	H	L	PWR ON OF OU	AMP.	Power relay drive output. H = Power ON
54	P75/FD13	O	P	Ed	—	Z	H	L	SP RELAY OUT	AMP.	Mute output at time of function change. H = Relay ON
55	P76/FD14	O	P	Ed	—	Z	H	L	STOPREQ OUT	TUNER	PLL stop request output. Stop request = H
56	P77FD15	O	P	Ed	—	Z	H	L	F.CE OUT	AMP.	Data latch output of LC7812 function LSI
57	Vcc	—	—	—	—	—	—	—	Vcc		865 V power supply input
58	P80	I	C	Eu	—	Z	H	L	SYREC IN	CD	Sync record start acknowledge input. L = Sync record start
59	P81	O	C	Ed	—	Z	L	H	94A.CE OUT	AMP.	BU9404 data latch output of the amplifier and tuner system.
60	P82	O	C	Ed	—	Z	L	H	P.CE OUT	TUNER	PLL LM7000 data latch output
61	P83	O	C	N	—	Z	H	L	40CE OUT		BU9040 CHIP ENABLE output
62	P84	O	C	N	—	Z	L	H	C.DATE OUT	CD	Data output for DSP control
63	P85	O	C	N	—	Z	L	H	C.CLK OUT	CD	Clock output for DSP control
64	P86	O	C	N	—	Z	H	L	C.XLT OUT	CD	Latch output for DSP control
65	P87	O	C	N	—	Z	L	H	C SCLK OUT	CD	Clock output for reading the DSP status from SENSE.
66	P90/PWM	O	C	Ed	—	Z	L	H	94C.CE OUT	CD	BU9404 data latch output of the CD system.
67	P91/SCK1	I	C	N	—	Z	—	—	R.CLK IN	TUNER	RDS data fetch clock input/CLOCK output for BU9040
68	P92/S11	I	C	N	—	Z	—	—	R.DATE IN	TUNER	RDS data serial input/BU9040 read DATA input
69	P93/S01	O	C	N	—	Z	H	H	40.DATE IN		BU9040 write DATA output
70	P94/SCK2	I	C	N	—	Z	—	—	C.SQCK IN	CD	SUBQ data fetch clock input
71	P95/SI2	I	C	N	—	Z	—	—	C.SUBQ IN	CD	SUBQ data serial input
72	P96/S02	I	C	N	—	Z	—	L	GFS IN	CD	GFS monitor input pin
73	P97/UD	I	C	N	Lv	Z	—	H	FOK IN	CD	FOK monitor input pin
74	PA0	O	C	N	—	Z	L	H	DATE OUT		Data output of the two BU4094, LM7000, and LC7812
75	PA1	O	C	N	—	Z	L	H	CLK OUT		Clock output of the two BU4094, LM7000, and LC7812.
76	AVcc	—	—	—	—	—	—	—	AVcc		Connected to the Vcc pin.
77	P00/AN0	I	C	EU	Lv	Z	—	L	TUNED IN	TUNER	Tuning signal input. L = Tuned
78	P01/AN1	I	C	EU	Lv	Z	—	L	SIGNAL IN	TUNER	Tuning signal input. L = Signal
79	P02/AN2	I	C	EU	Lv	Z	—	L	STEREO IN	TUNER	Stereo mode detection input. L = Stereo
80	P03/AN3	I	C	EU	Lv	Z	—	L	STOP IN	TUNER	PLL stop input. L = Stop

NOTE

IO: Port use. In/Out.
TY: Port type. C/P/N mos, Analog
OP: mask option. Ex/In ternal pull Up/Down, No
DT: port detect type. Edge, Level
RS: Port output when reset.
Z: High inpeadance
IN: Port output by initialize by soft
AC: Port in/out activity. Low/High active

• Buttons of the Main Unit

NO.	Function Name		Function and Definition
1	FREQ. UP		• In the tuner receiving mode, changes the reception frequency upward by one step. Holding the button down for 0.5 seconds or longer causes a continuous change of frequency, and releasing the button sets the auto tuning mode from that point onward. Another press of the button sets the manual tuning operation. • Increments the registration number at the time of preset memory registration. • Becomes a one-step shift button in the upper direction for selection options when setting the time, setting the timer, and setting the RDS mode. Holding the button down for 0.5 seconds or longer causes a continuous change, and releasing the button result in a return to the one-step operation.
2	FREQ. DOWN		Provides the reverse operations of FREQ. UP.
3	PRESET UP		• Function = Tuner: This button increments the preset number from the current setting provides reception. • Function = CD: This button operates as the forward search button. Combined use of manual and automatic modes. • Function settings other than "Function = Tuner, or CD" result in a switch over to "Function = Tuner." • A press of the button in the power off mode results in the power being switched on in the "Function = Tuner" mode, and the reception of the currently preset number.
4	PRESET DOWN		• Provides the reverse operations of PRESET UP. • A press of the button in the power off mode results in the power being switched on in the "Function = Tuner" mode, and the reception of the currently preset number.
5	PRESET SCAN		A press of this button scans preset stations in order from P1 through P20, receiving each for 5 seconds. Another press of the button stops the operation.
6	MEMORY		• This button switches the unit to the preset registration mode, and writes the currently received station to preset memory for storage. • Becomes the registration ENTER button when setting the time, timer, and RDS.
7	BAND		• Toggles between FM and AM when the function is set to tuner and receives the last channel of the selected band. • Function settings other than "Function = Tuner" result in a call back to "Function = Tuner" and reception of the last channel. • A press of the button in the power off mode results in the power being switched on in the "Function = Tuner" mode, and the reception of the last channel.

NO.	Function Name		Function and Definition
8	FM MODE *(AM MODE)* (AUTO/MONO)		• This button switches the FM reception mode between the STEREO/MONO auto mode and the MONO fixed mode. Toggles *AUTO/MONO OUT between high and low level.* • Can be used with AM depending on the setting of the selection switch.
10	FM	☆	• Function = Tuner: Sets the band to FM and receives the last FM channel. • Function settings other than "Function = Tuner" result in a call back to "Function = Tuner," setting of the band to FM, and reception of the last FM channel. • A press of the button in the power off mode results in the power being switched on in the "Function = Tuner" mode, and the reception of the last FM channel.
11	AM/FM	☆	• Function = Tuner: Sets the band to AM and receives the last AM channel. • Function settings other than "Function = Tuner" result in a call back to "Function = Tuner," setting of the band to AM, and reception of the last AM channel. • A press of the button in the power off mode results in the power being switched on in the "Function = Tuner" mode, and the reception of the last AM channel.
12	LOCAL/DX	☆	This button switches the antenna input attenuator on and off. Toggles LOCAL/DX OUT between high and low level.
13	TEN KEY P1~10 (REMOCON ONLY)	◇	These buttons specify preset memory numbers 1 through 10. • Function settings other than "Function = Tuner" result in a switch to "Function = Tuner" and reception of the specified number. • A press of the button in the power off mode results in the power being switched on in the "Function = Tuner" mode, and the reception of the specified preset number.
14	P+10 (REMOCON ONLY)	◇	This button specifies the addition of ten to the preset memory number. • A press of this button in the power off mode results in the power being switched on in the "Function = Tuner" mode with the next P1 through P10 button input, and the reception of the specified preset number.
15	RDS		Transition command to the RDS mode and operation mode selection button.
16	CT		CT display start and internal clock update starting button.
17	DISPLAY		• Function settings other than "Function = CD" result in this button providing switching between the various function displays and the clock display. • Holding the button down sets the time setting mode. • Function = CD: This button operates as the TIME button. Depressing the button for 3 seconds is invalid.
18	SLEEP		This is the setting button of the timer which switches the power off after the set time (within 60 minutes).
19	TIMER	☆	This button causes a transition to the timer setting mode.
20	STAND BY	☆	A press of this button selects whether or not the timer operation will be performed with a press of this button. This button causes the ◷ mark to light or go off.
21	CLEAR	☆	This button switches all the power of the system on and off.
22	POWER		This button switches all the power of the system on and off.
23	FUNCTION		This button switches the function in a cyclic manner (i.e., a rotary function).
24	SDB		Switches SDB on and off.
25	-20 dB MUTE		Switches -20 dB mute on and off.
23	DIMMER	☆	This button switches the dimmer.
26	STOP		This button commands CD play to stop. It stops the rotation of the disc and causes the pickup to move to the innermost track.
27	PLAYE		CD play start button. • When this button is pressed to a function setting other than "Function = CD," the function is set to CD and the CD is played. • A press of this button in the power off mode results in the power being switched on in the "Function = CD" mode, and the CD is played.
28	PLAYE		Commands the repeat mode. Cyclic switching in the sequence of REPEAT 1 TRACK –> REPEAT ALL –> NORMAL.
29	OPEN/CLOSE		This button commands opening and closing of the tray with a toggle operation. Can operate with all of the functions. A press of this button in the power off mode results in the power being switched and the operation.
30	TEN KEY T1~10 (REMOCON ONLY)	◇	These buttons specify the track number. Valid only in the "Function = CD" mode.
31	TEN KEY T1~10 (REMOCON ONLY)	◇	This button specifies the addition of ten to the track number. Valid only in the "Function = CD" mode.
△ 32	SYREC	☆	Inputs a CD sync record transition. Valid only in the "Function = CD" mode. Continuously depressed at the time of the CD sync record transition.

Description of the Button Functions

◇: Button of the remote control only

☆: Button of the main unit only

No mark: Button found on both the main unit and the remote control.

NOTE: Buttons in common for CD and tuner

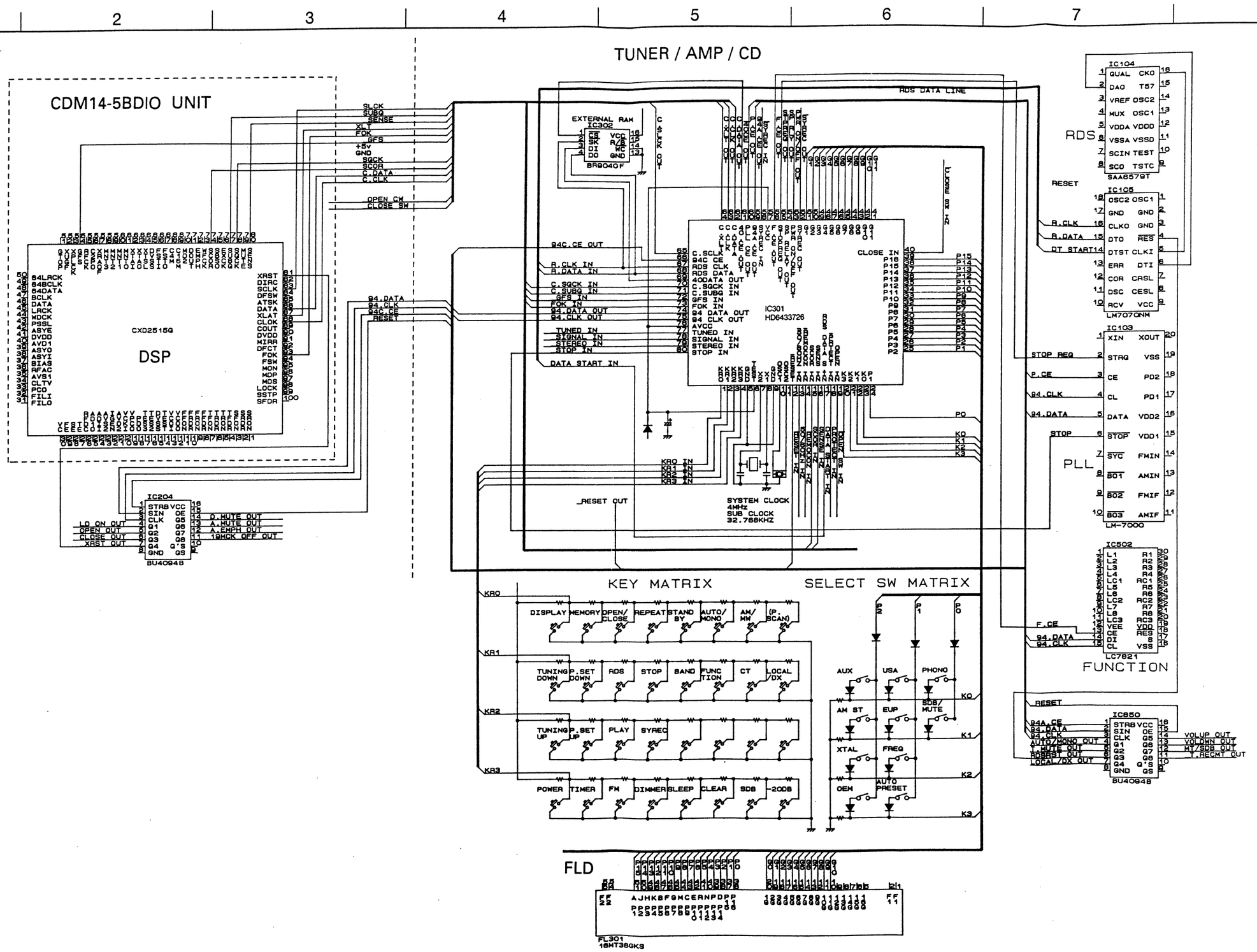
● Matrix

SCAN LINE	K0 IN	K1 IN	K2 IN	K3 IN
P0	AUX	AM STEREO	XTAL	OEM
P1	USA	EUP	FREQ	AUTO P.SET
P2	PHONO	SDB/MUTE	–	–

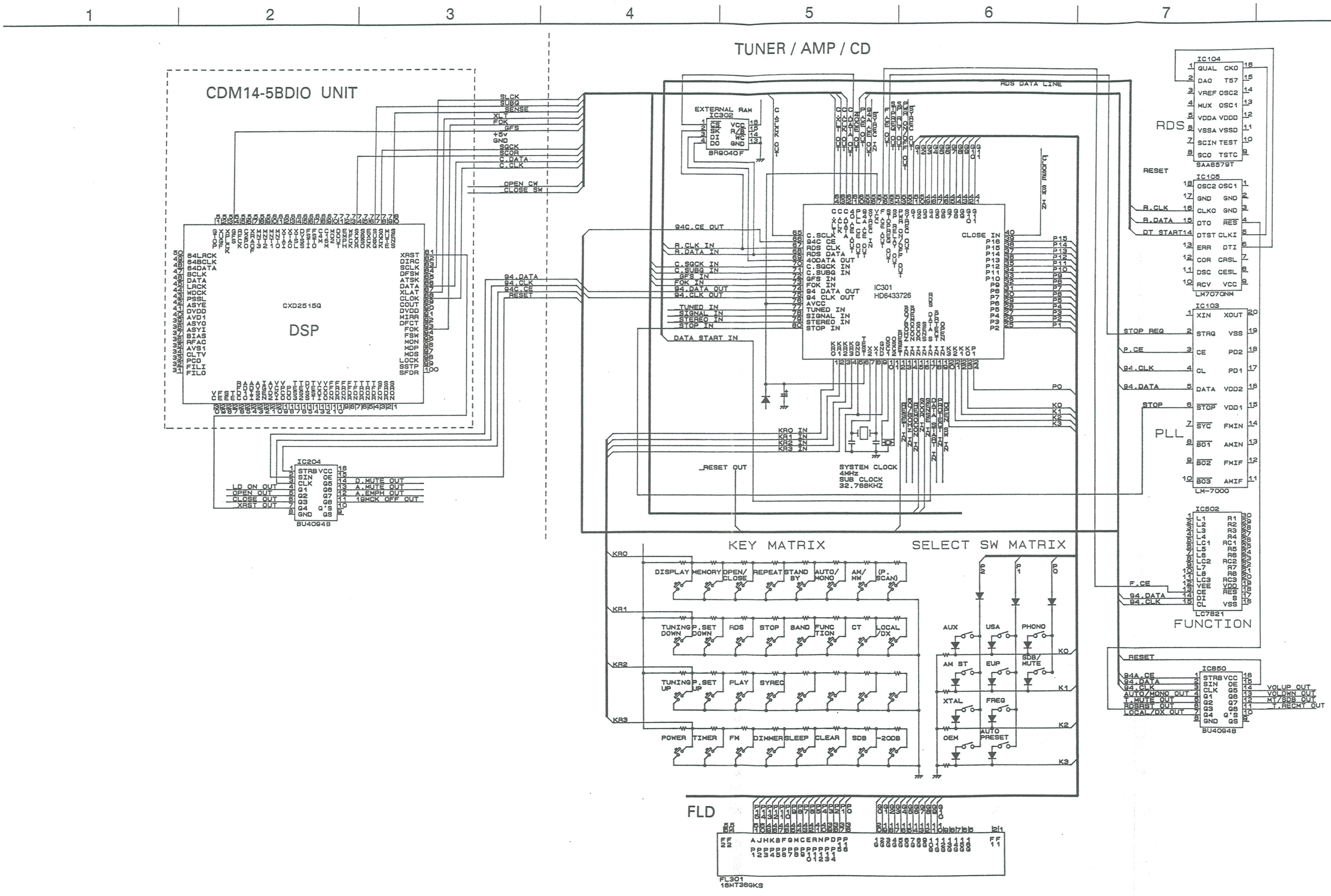
● Description of the Functions

NO.	Function Name	Function and Definition
1	USE	USA destination selection switch. Refers to the destination selection list.
2	EUP	Europe destination selection switch. Refers to the destination selection list.
3	FREQ	IF frequency setting switch. Refers to the destination selection list.
4	AUX	This switch changes the function display in the AUX function. • Open: MD/DAT (normal setting) • Shorted: AUX
5	AM STEREO	Selection switch for whether or not AM stereo operation will be enabled on the AM bands of all destinations. • Open: AM stereo operation not enabled (except for Japan). (Normal setting) • Shorted: AM stereo operation enabled (for all destinations).
6	XTAL	Selection switch for whether the clock count is based on power supply synchronization or 32.768 kHz. • Open: 32.768 kHz crystal (Normal setting) • Shorted: Power supply synchronization
7	OEM	This switch selects the display when the power is on. • Open: DENON display (Normal setting) • Shorted: HELLO display
8	△ PHONO	This switch selects whether PHONO is to be skipped with the function switching.(PHONO setting of the remote control is ignored.) • Shorted: No skipping (Normal setting) • Open: Skipping
9	SDB/MUTE	This switch selects the priority of SDB or 20 dB muting. • Open: Mute (Normal setting) • Shorted: SDB
10	AUTO PRESET	This switch selects whether or not to perform the auto preset operation. • Open: Perform the auto preset operation. (Normal setting) • Shorted: Do not perform the auto preset operation.

MICROPROCESSOR PERIPHERAL WIRING DIAGRAM



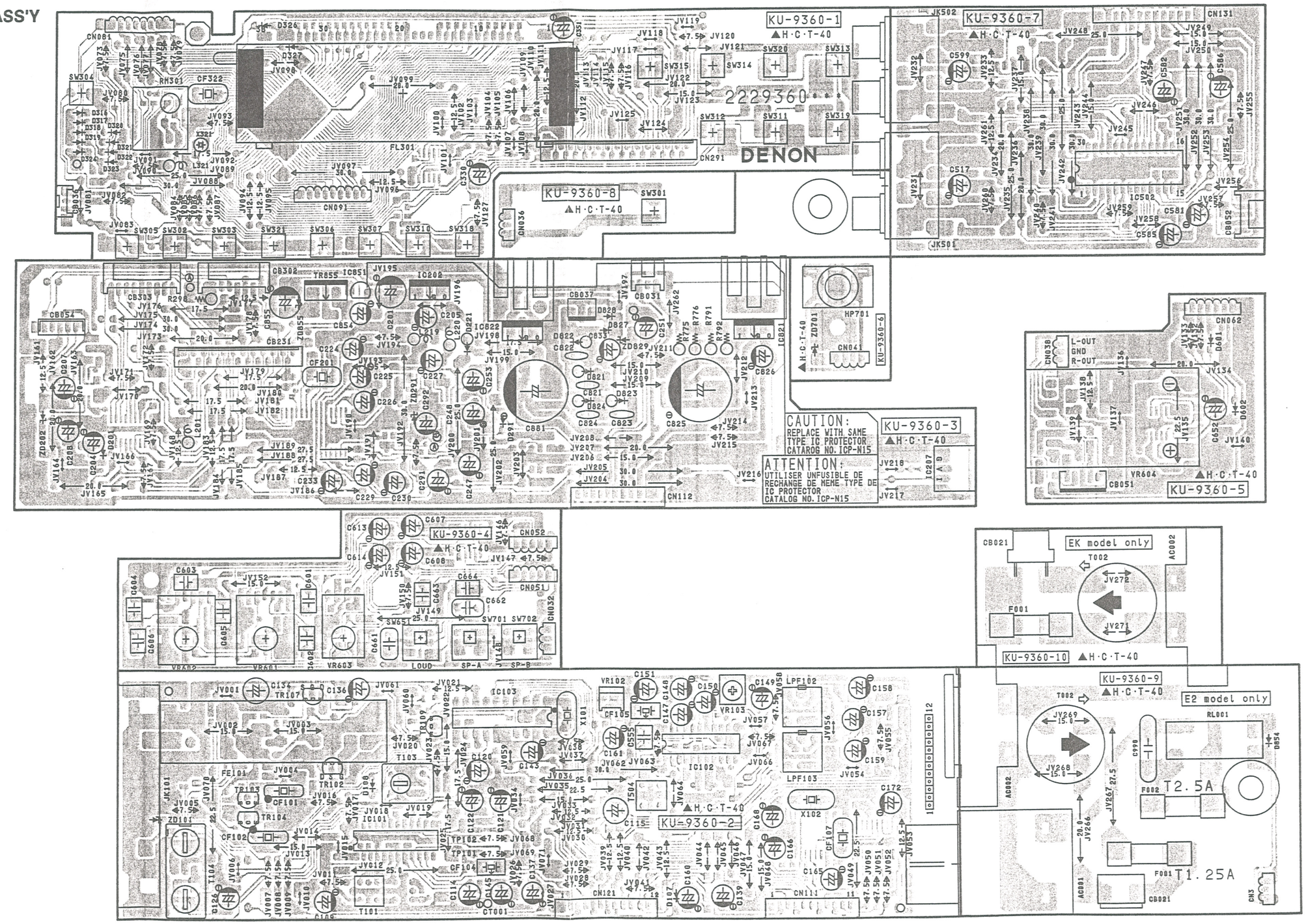
MICROPROCESSOR PERIPHERAL WIRING DIAGRAM



PRINTED WIRRNG BOARD

KU-9360 TUNER UNIT ASS'Y
Component Side

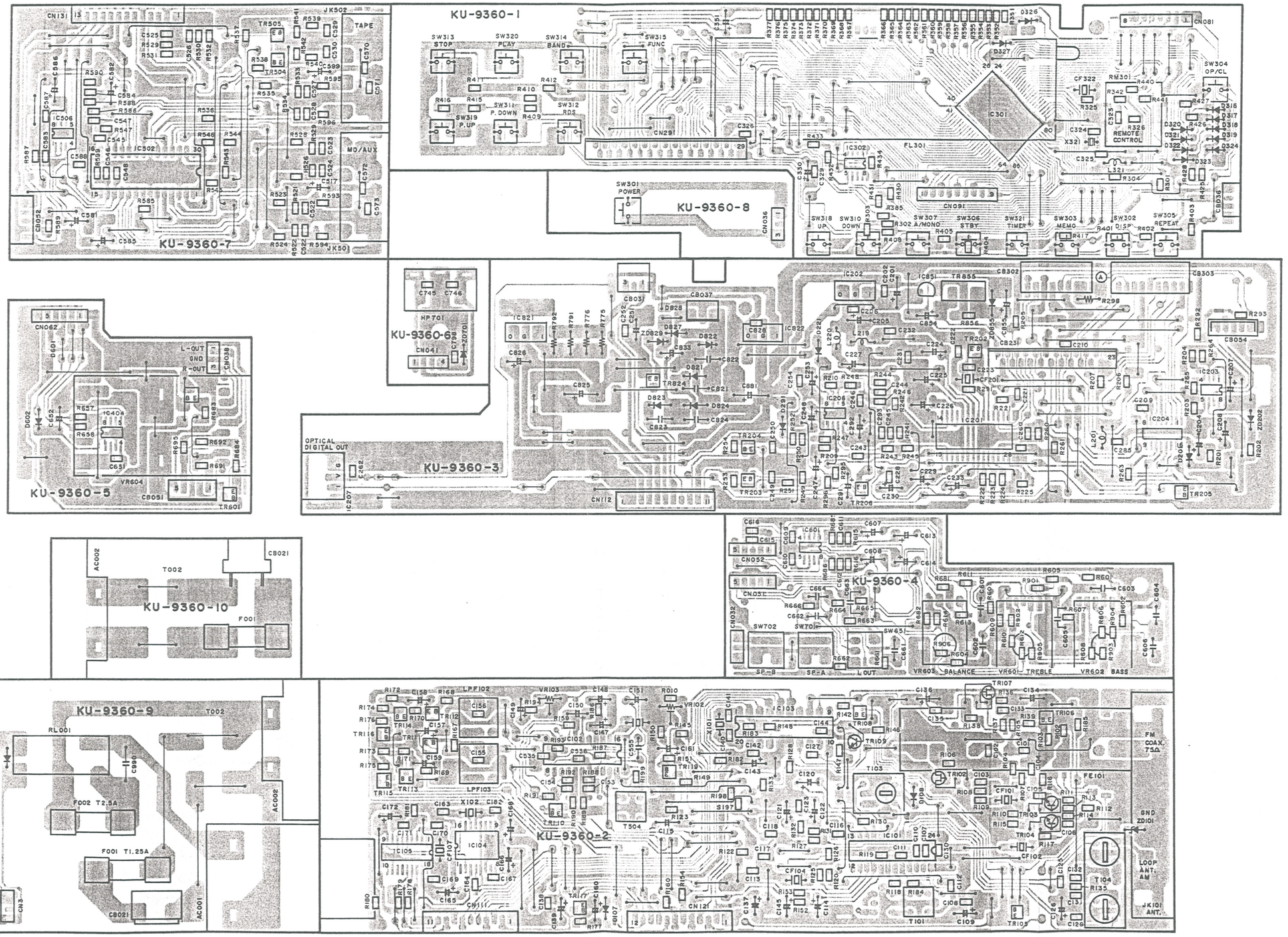
KU-9360 TUNER UNIT ASS'Y	
1	TUNER UNIT
2	DISPLAY UNIT
3	TONE UNIT
4	HEADPHONE UNIT



1 2 3 4 5 6 7 8

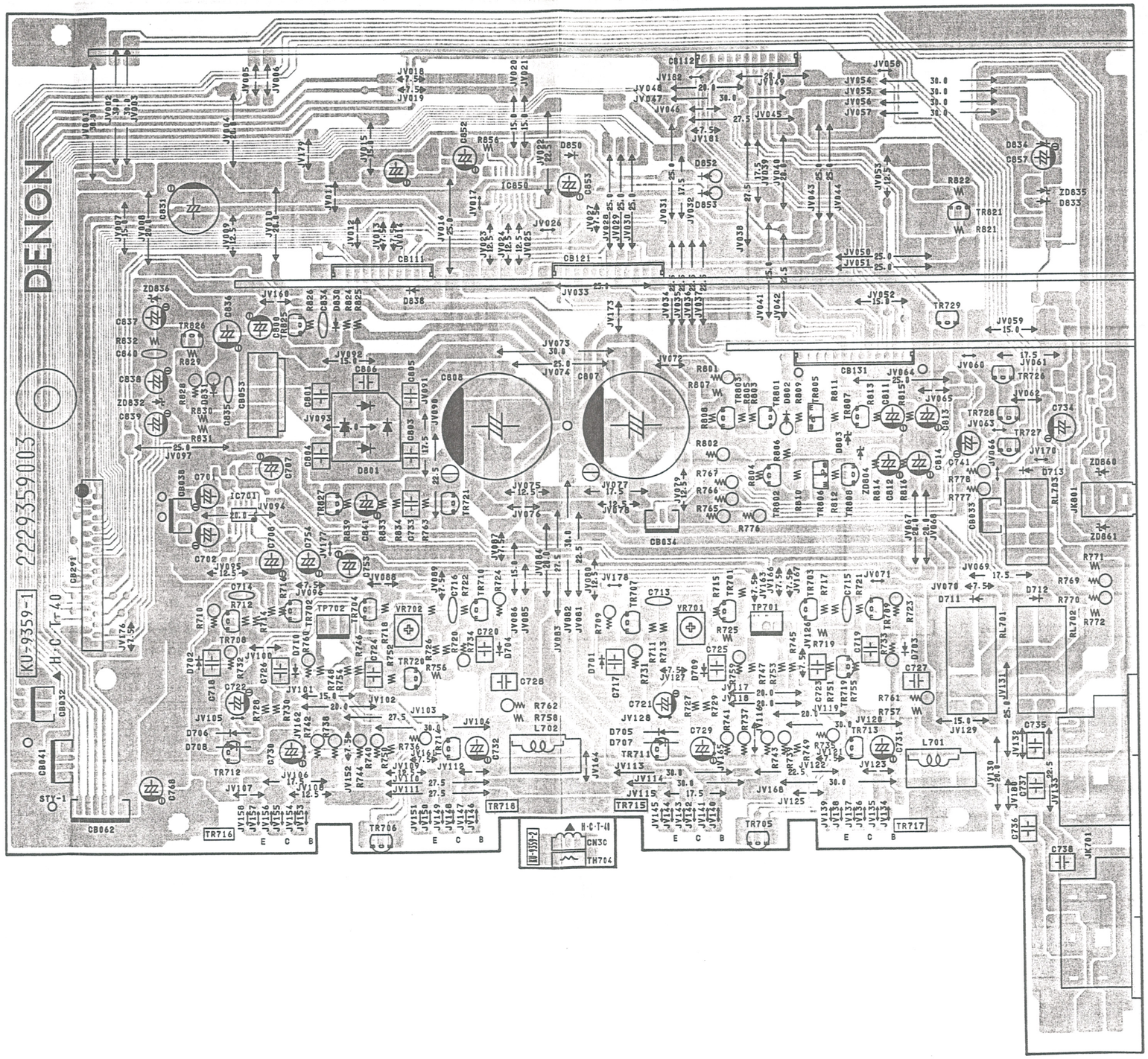
A B C D E

Pattern Side



KU-9359 MAIN UNIT ASS'Y
Component Side

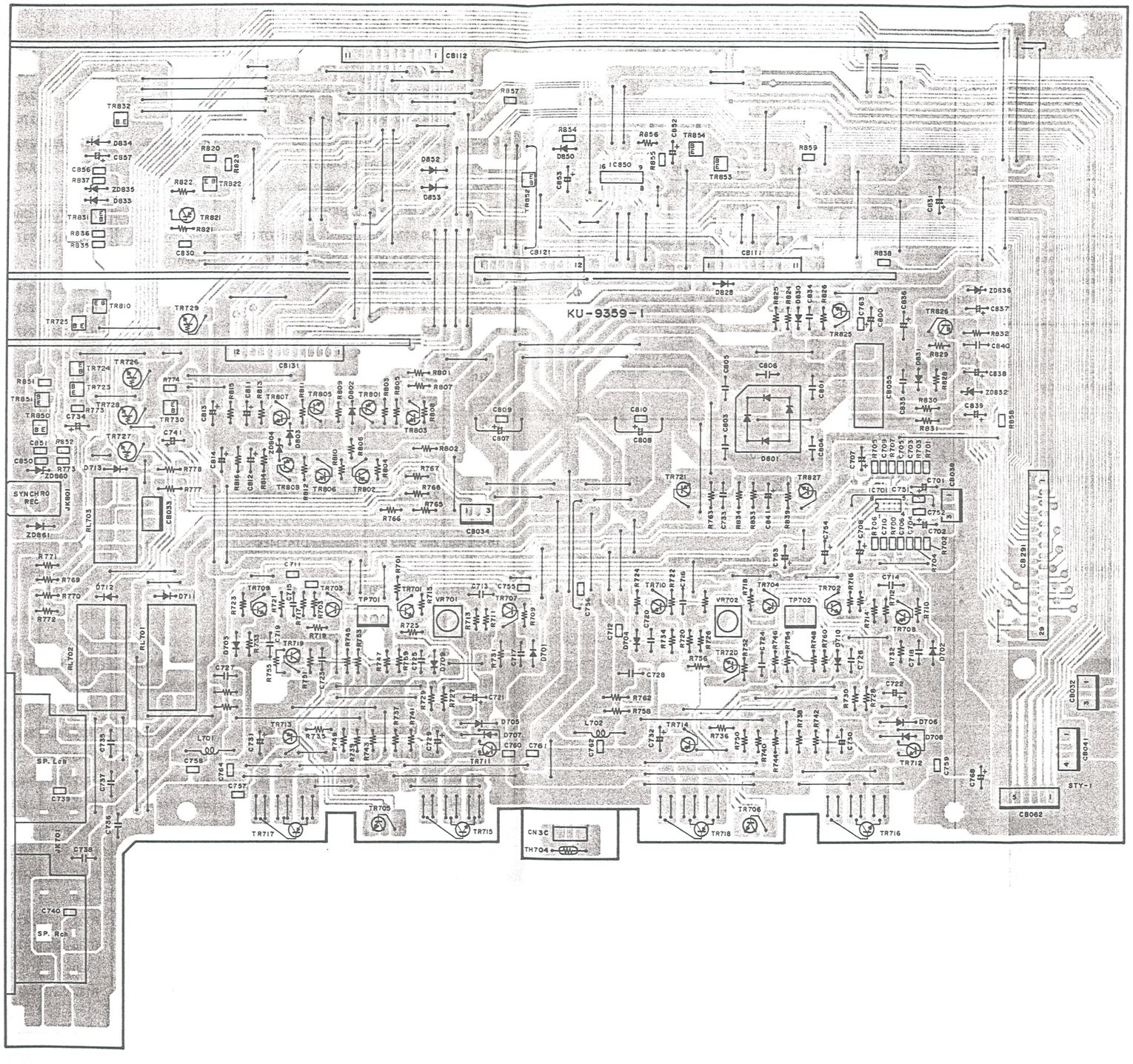
KU-9359 MAIN UNIT ASS'Y	
1	MAIN UNIT
2	INPUT & BUFFER UNIT
3	VOLUME UNIT
4	AC IN UNIT



1 | 2 | 3 | 4 | 5 | 6 | 7 | 8

A | B | C | D | E

Pattern Side



NOTE ON PARTS LIST

- *Part indicated with the mark "◉" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.*
- When ordering of part, clearly indicate "1" and "I" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.
- Not including Carbon Film ±5%, 1/4 W Type in the P.W. Board parts list. (Refer to the Schematic Diagram for those parts.)

WARNING:
Parts marked with this symbol ⚠ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

• Resistors

Ex.: RN 14K 2E 182 G FR

Type / Shape and performance / Power / Resistance / Allowable error / Others

RD : Carbon Film RC : Composition RS : Metallic oxide Film RW : Winding RN : Metal film RK : Metal mixture	2B : 1/8W 2E : 1/4W 2H : 1/2W 3A : 1W 3D : 2W 3F : 3W 3H : 5W	F : ±1% G : ±2% J : ±5% K : ±10% M : ±20%	P : Pulse-resistant type NL : Low noise type NB : Non-burning type FR : Fuse-resistor F : Lead wire forming

※ Resistance

1 8 2 ⇨ 1800 ohm = 1.8 kohm
- 1 8: Indicates number of zeros after effective number.
- 2: 2-digit effective number.
- Units: ohm

1 R 2 ⇨ 1.2 ohm
- 1: 1-digit effective number.
- R 2: 2-digit effective number, decimal point indicated by R.
- Units: ohm

※ Capacity (electrolyte only)

2 2 2 ⇨ 2200 µF
- 2 2: Indicates number of zeros after effective number.
- 2: 2-digit effective number.
- Units: µF

2 R 2 ⇨ 2.2 µF
- 1: 1-digit effective number.
- R 2: 2-digit effective number, decimal point indicated by R.
- Units: µF

• Capacitors

Ex.: CE 04W 1H 2R2 M BP

Type / Shape and performance / Dielectric strength / Capacity / Allowable error / Others

CE : Aluminum foil electrolyte CA : Aluminum solid electrolyte CS : Tantalum electrolyte CQ : Film CK : Ceramic CC : Ceramic CP : Oil CM : Mica CF : Metallized CH : Metallized	0J : 6.3V 1A : 10V 1C : 16V 1E : 25V 1V : 35V 1H : 50V 2A : 100V 2B : 125V 2C : 160V 2D : 200V 2E : 250V 2H : 500V 2J : 630V	F : ±1% G : ±2% J : ±5% K : ±10% M : ±20% Z : +80% −20% P : +100% −0% C : ±0.25pF D : ±0.5pF = : Others	HS : High stability type BP : Non-polar type HR : Ripple-resistant type DL : For charge and discharge HF : For assuring high frequency U : UL part C : CSA part W : UL-CSA type F : Lead wire forming

※ Capacity (except electrolyte)

2 2 2 ⇨ 2200 pF = 2200 µµF = 0.0022 µF
- 2 2: Indicates number of zeros after effective number.
- (More than 2): 2-digit effective number.
- Units: µF

2 2 1 ⇨ 220 pF
- 2 2: Indicates number of zeros after effective number.
- (0 or 1): 2-digit effective number.
- Units: pF
- When the dielectric strength is indicated in AC, "AC" is included after the dielectric strength value.

KU-9360 TUNER UNIT ASS'Y PARTS LIST

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC101	263 0421 002	IC LA1267	
IC102	263 0439 007	IC LA3401	
IC103	262 0703 002	IC LM7000	
IC105	263 0614 903	IC LC7070NM-TE-R	
IC201	262 2107 907	IC PCM1710U	
IC202	263 1024 000	IC BA178M05	Regulator +5V
IC203	263 0994 908	IC BA6287F	
IC204	263 1040 903	IC BU4094BF	
IC206,506	263 0615 902	IC BA15218F	
IC207	269 0170 005	Optical Out Unit TOTX178	
IC301	262 2319 009	IC HD6433726***F	µ-Com
IC302	262 2071 907	IC BR9040F	
IC502	262 1227 008	IC LC7821	
IC601	262 1701 906	IC SAA6579T-T	
IC604	263 0905 900	IC BA6208F	
IC821	263 1004 004	IC BA178M12	Regulator +12V
IC822	263 1010 001	IC BA178M06	Regulator +6V
IC851	268 0073 905	IC ICP-N15T	
TR102	275 0051 909	FET 2SK161(GR)	
TR103,104, 109	273 0025 926	Transistor 2SC461P (C)	
TR105,108, 117	269 0083 901	Transistor DTA114EK	Builtin Resistor
TR106,111, 112	273 0384 900	Transistor 2SC2412K (S)	
TR107	275 0053 907	FET 2SK365 (BL/GR)	
TR113-116	269 0066 902	Transistor DTC323TK	Builtin Resistor
TR202,206, 824	269 0082 902	Transistor DTC114EK	Builtin Resistor
TR203,204	269 0066 902	Transistor DTC323TK	Builtin Resistor
TR205	269 0119 901	Transistor DTA124EK	Builtin Resistor
TR504,505	269 0091 906	Transistor DTC143TK	Builtin Resistor
TR601,602	269 0091 906	Transistor DTC143TK	Builtin Resistor
TR110,119	273 0384 900	Transistor 2SC2412K(S)	
D107,108, 321,327	276 0616 907	Diode 1SS252	
D201,601, 602,854	276 0616 907	Diode 1SS252	
D221	276 0553 905	Diode 1SR35-200A	
D318,326, 827,828	276 0616 907	Diode 1SS252	
D821-824	276 0553 905	Diode 1SR35-200A	
ZD101	276 0643 941	Zener Diode MTZJ3.6A	3.6V
ZD202	276 0643 970	Zener Diode MTZJ4.7A	4.5V
ZD291	276 0616 907	Diode 1SS252	
ZD291	276 0644 966	Zener Diode MTZJ12A	11.5V
ZD701,855	276 0644 924	Zener Diode MTZJ8.2A	7.7V
ZD829	276 0633 906	Zener Diode MTZJ6.8C	6.8V
RESISTORS GROUP	(Not included Carbon Film ±5%, 1/4W Type. Refer to the Schematic Diagram for those Parts.)		
R102,118, 150	247 0010 961	Chip Carbon 22 kohm 1/10W	RM73B-223J
R103	247 0010 987	Chip Carbon 27 kohm 1/10W	RM73B-273J
R104	247 0003 949	Chip Carbon 22 ohm 1/10W	RM73B-220J
R105,142, 146,147	247 0007 945	Chip Carbon 1 kohm 1/10W	RM73B-102J
R106	247 0006 917	Chip Carbon 300 ohm 1/10W	RM73B-301J
R107,109, 116	247 0005 905	Chip Carbon 100 ohm 1/10W	RM73B-101J
R108	247 0005 976	Chip Carbon 200 ohm 1/10W	RM73B-201J
R110,117	247 0006 920	Chip Carbon 330 ohm 1/10W	RM73B-331J
R111	247 0010 945	Chip Carbon 18 kohm 1/10W	RM73B-183J
R112,154, 175,176	247 0009 985	Chip Carbon 10 kohm 1/10W	RM73B-103J
R113, 181-183	247 0009 985	Chip Carbon 10 kohm 1/10W	RM73B-103J
R114,247, 248	247 0009 985	Chip Carbon 10 kohm 1/10W	RM73B-103J
R115,186, 221,296	247 0007 945	Chip Carbon 1 kohm 1/10W	RM73B-102J
R119	247 0011 960	Chip Carbon 56 kohm 1/10W	RM73B-563J
R120,140, 545,546	247 0006 962	Chip Carbon 470 ohm 1/10W	RM73B-471J
R122,205	247 0008 944	Chip Carbon 2.7 kohm 1/10W	RM73B-272J
R123,137, 607,608	247 0010 961	Chip Carbon 22 kohm 1/10W	RM73B-223J
R125,295	247 0004 980	Chip Carbon 82 ohm 1/10W	RM73B-820J
R126,249, 250	247 0010 990	Chip Carbon 30 kohm 1/10W	RM73B-303J
R127	247 0009 956	Chip Carbon 7.5 kohm 1/10W	RM73B-752J
R130-132, 160	247 0009 985	Chip Carbon 10 kohm 1/10W	RM73B-103J
R133	247 0011 986	Chip Carbon 68 kohm 1/10W	RM73B-683J

Ref. No.	Part No.	Part Name	Remarks
R135,159, 197,199	247 0012 927	Chip Carbon 100 kohm 1/10W	RM73B-104J
R136,187	247 0008 928	Chip Carbon 2.2 kohm 1/10W	RM73B-222J
R138,139	247 0005 989	Chip Carbon 220 ohm 1/10W	RM73B-221J
R145,149, 151,185	247 0009 985	Chip Carbon 10 kohm 1/10W	RM73B-103J
R148	247 0012 969	Chip Carbon 150 kohm 1/10W	RM73B-154J
R152	247 0011 931	Chip Carbon 43 kohm 1/10W	RM73B-433J
R153,177	247 0009 927	Chip Carbon 5.6 kohm 1/10W	RM73B-562J
R167-170	247 0009 927	Chip Carbon 5.6 kohm 1/10W	RM73B-562J
R171-174	247 0005 992	Chip Carbon 240 ohm 1/10W	RM73B-241J
R178-180	247 0011 944	Chip Carbon 47 kohm 1/10W	RM73B-473J
R184	247 0018 905	Chip Carbon 0 ohm 1/10W	RM73B-0R0K
R188-190, 192	247 0012 969	Chip Carbon 150 kohm 1/10W	RM73B-154J
R191,193, 292,293	247 0008 931	Chip Carbon 2.4 kohm 1/10W	RM73B-242J
R198,206, 207	247 0009 985	Chip Carbon 10 kohm 1/10W	RM73B-103J
R201, 261-263	247 0009 985	Chip Carbon 10 kohm 1/10W	RM73B-103J
R202	247 0004 977	Chip Carbon 75 ohm 1/10W	RM73B-750J
R203,204 264,265	247 0009 985	Chip Carbon 10 kohm 1/10W	RM73B-103J
R209,210, 661,662	247 0009 930	Chip Carbon 6.2 kohm 1/10W	RM73B-622J
R222-225	247 0009 985	Chip Carbon 10 kohm 1/10W	RM73B-103J
R241,242, 260	247 0011 944	Chip Carbon 47 kohm 1/10W	RM73B-473J
R243-246	247 0009 985	Chip Carbon 10 kohm 1/10W	RM73B-103J
R251,252, 405,412	247 0007 903	Chip Carbon 680 ohm 1/10W	RM73B-681J
R253,254, 537,538	247 0005 905	Chip Carbon 100 ohm 1/10W	RM73B-101J
R291	247 0005 947	Chip Carbon 150 ohm 1/10W	RM73B-151J
⚠R298,776, 791,792	244 2051 929	Metal Oxide 820 ohm 1W(NB)	RS14B3A821JNBS(S)
R301-304	247 0007 945	Chip Carbon 1 kohm 1/10W	RM73B-102J
R325	247 0014 967	Chip Carbon 1 Mohm 1/10W	RM73B-105J
R326	247 0011 944	Chip Carbon 47 kohm 1/10W	RM73B-473J
R342	247 0009 985	Chip Carbon 10 kohm 1/10W	RM73B-103J
R351-354	247 0011 944	Chip Carbon 47 kohm 1/10W	RM73B-473J
R355-358	247 0011 944	Chip Carbon 47 kohm 1/10W	RM73B-473J
R359-362	247 0011 944	Chip Carbon 47 kohm 1/10W	RM73B-473J

Ref. No.	Part No.	Part Name	Remarks
R363-366	247 0011 944	Chip Carbon 47 kohm 1/10W	RM73B-473J
R367-370	247 0011 944	Chip Carbon 47 kohm 1/10W	RM73B-473J
R371-374	247 0011 944	Chip Carbon 47 kohm 1/10W	RM73B-473J
R375-377	247 0011 944	Chip Carbon 47 kohm 1/10W	RM73B-473J
R385, 904-906	247 0018 905	Chip Carbon 0 ohm 1/10W	RM73B-0R0K
R401, 408, 415,417	247 0005 947	Chip Carbon 150 ohm 1/10W	RM73B-151J
R402,409, 416,856	247 0005 963	Chip Carbon 180 ohm 1/10W	RM73B-181J
R403,410	247 0006 904	Chip Carbon 270 ohm 1/10W	RM73B-271J
R404,411, 683,684	247 0006 946	Chip Carbon 390 ohm 1/10W	RM73B-391J
R425-428	247 0011 944	Chip Carbon 47 kohm 1/10W	RM73B-473J
R430,440, 441	247 0018 905	Chip Carbon 0 ohm 1/10W	RM73B-0R0K
R431-434	247 0009 985	Chip Carbon 10 kohm 1/10W	RM73B-103J
R521,522, 525,526	247 0012 927	Chip Carbon 100 kohm 1/10W	RM73B-104J
R523,524, 527,528	247 0006 962	Chip Carbon 470 ohm 1/10W	RM73B-471J
R529,530, 533,534	247 0012 927	Chip Carbon 100 kohm 1/10W	RM73B-104J
R531,532, 535,536	247 0006 962	Chip Carbon 470 ohm 1/10W	RM73B-471J
R539,540, 593,594	247 00059 05	Chip Carbon 100 ohm 1/10W	RM73B-101J
R541-544	247 0012 927	Chip Carbon 100 kohm 1/10W	RM73B-104J
R547	247 0014 925	Chip Carbon 680 kohm 1/10W	RM73B-684J
R585,586	247 0013 984	Chip Carbon 470 kohm 1/10W	RM73B-474J
R587-590	247 0012 927	Chip Carbon 100 kohm 1/10W	RM73B-104J
R595,596	247 0005 905	Chip Carbon 100 ohm 1/10W	RM73B-101J
R599	247 0009 901	Chip Carbon 4.7 kohm 1/10W	RM73B-472J
R601,602	247 0010 974	Chip Carbon 24 kohm 1/10W	RM73B-243J
R603,604, 657,658	247 0009 985	Chip Carbon 10 kohm 1/10W	RM73B-103J
R605,606	247 0005 989	Chip Carbon 220 ohm 1/10W	RM73B-221J
R609,610	247 0011 928	Chip Carbon 39 kohm 1/10W	RM73B-393J
R611-614	247 0007 945	Chip Carbon 1 kohm 1/10W	RM73B-102J
R615,616, 663,664	247 0014 967	Chip Carbon 1 Mohm 1/10W	RM73B-105J
R665,666	247 0010 903	Chip Carbon 12 kohm 1/10W	RM73B-123J
R681,682	247 0008 957	Chip Carbon 3.3 kohm 1/10W	RM73B-302J

Ref. No.	Part No.	Part Name	Remarks
R685,686, 691,692	247 0018 905	Chip Carbon 0 ohm 1/10W	RM73B-0R0K
R695, 901~903	247 0018 905	Chip Carbon 0 ohm 1/10W	RM73B-0R0K
⚠R775	244 2051 974	Metal Oxide 1 kohm 1W(NB)	RS1/3A102JNBSIS
VR102	211 6095 952	Semi Fixed Resistor 100 kohm	V06QB104
VR103	211 6093 970	Semi Fixed Resistor 100 kohm	V06PB104
VR601,602	211 9135 000	Variable Resistor 50 kohm	V1420P25FB503K
VR603	211 9136 009	Variable Resistor 50 kohm	V11P25FW503-
VR604	211 9137 008	Variable Resistor 100 kohm	V1620V20FB104T
CAPACITORS GROUP			
C101~104	257 0012 966	Chip Ceramic 0.01μF/50V	CK73F1H103Z
C105,106, 111,128	257 0012 966	Chip Ceramic 0.01μF/50V	CK73F1H103Z
C107,108, 110	257 0012 982	Chip Ceramic 0.022μF/50V	CK73F1H223Z
C109,120, 149,160	254 4254 909	Electrolytic 10μF/16V	CE04W1C100M (SME)
C112,222, 223	257 0002 921	Chip Ceramic 10pF/50V	CC73SL1H100D
C113	257 0003 946	Chip Ceramic 33pF/50V	CC73SL1H330J
C114,121, 148	254 4260 964	Electrolytic 3.3μF/50V	CE04W1H3R3M (SME)
C115	254 3056 933	Electrolytic 3.3μF/50V	CE04D1H3R3MBP (SME)
C116,127, 249,250	257 0007 900	Chip Ceramic 1000 PF/50V	CC73SL1H102J
C117	257 0009 982	Chip Ceramic 6800pF/50V	CK73B1H682K
C118	257 1013 977	Chip Ceramic 0.068μF/50V	CK73B1E683K
C122,143, 145	254 4260 977	Electrolytic 4.7μF/50V	CE04W1H4R7M (SME)
C123,125, 129,133	257 0012 982	Chip Ceramic 0.022μF/50V	CK73F1H223Z
C126,136, 151,157	254 4254 938	Electrolytic 47μF/16V	CE04W1C470M (SME)
C130,169, 170	257 0003 933	Chip Ceramic 30pF/50V	CC73SL1H300J
C131	257 0002 992	Chip Ceramic 20pF/50V	CC73SL1H200J
C132,135, 138,326	257 0012 966	Chip Ceramic 0.01μF/50V	CK73F1H103Z
C134	254 3056 917	Electrolytic 1μF/50V	CE04D1H010MBP (SME)
C137	254 4254 941	Electrolytic 100μF/16V	CE04W1C101M (SME)

Ref. No.	Part No.	Part Name	Remarks
C139,161, 205	254 4252 930	Electrolytic 100μF/10V	CE04W1A101M (SME)
C140,141	257 0016 933	Chip Ceramic 15pF/50V	CC73CH1H150J
C142,171, 323,329	257 0012 966	Chip Ceramic 0.01μF/50V	CK73F1H103Z
C144,164	257 0004 961	Chip Ceramic 100pF/50V	CC73SL1H101J
C147	254 4260 935	Electrolytic 0.47μF/50V	CE04W1HR47M (SME)
C150,251	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M (SME)
C153,154, 535	257 0005 986	Chip Ceramic 330pF/50V	CC73SL1H331J
C155,156	257 0009 924	Chip Ceramic 2200pF/50V	CK73B1H222K
C158,159, 165	254 4260 951	Electrolytic 2.2μF/50V	CE04W1H2R2M (SME)
C162,163	257 0016 962	Chip Ceramic 27pF/50V	CC73CH1H270J
C166,168, 172	254 4252 927	Electrolytic 47μF/10V	CE04W1A470M (SME)
C167	257 0006 943	Chip Ceramic 560pF/50V	CC73SL1H561J
C201,291, 855	254 4254 954	Electrolytic 220μF/16V	CE04W1C221M (SME)
C202,254, 587,588	257 0012 966	Chip Ceramic 0.01μF/50V	CK73F1H103Z
C204,207, 208	254 4254 909	Electrolytic 10μF/16V	CE04W1C100M (SME)
C206,209, 210,285	257 0012 966	Chip Ceramic 0.01μF/50V	CK73F1H103Z
C221,262, 293,536	257 0012 966	Chip Ceramic 0.01μF/50V	CK73F1H103Z
C224,226	254 4254 909	Electrolytic 10μF/16V	CE04W1C100M (SME)
C225,247, 248,253	254 4254 909	Electrolytic 10μF/16V	CE04W1C100M (SME)
C227,229, 230,233	254 4254 909	Electrolytic 10μF/16V	CE04W1C100M (SME)
C228,231, 232,260	257 0014 935	Chip Ceramic 0.1μF/50V	CK73F1E104Z
C243~246	257 0005 986	Chip Ceramic 330pF/50V	CC73SL1H331J
C252,651, 745,746	257 0012 966	Chip Ceramic 0.01μF/50V	CK73F1H103Z
C292	254 4254 909	Electrolytic 10μF/16V	CE04W1C100M (SME)
C585,586			
C330	254 4302 974	Electrolytic 100μF/10V	CE04W1A101M (SRE)
C351	254 4299 906	Electrolytic 10μF/16V	CE04W1C100M (SRE)
C613,614			
C517,599, 833	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M (SME)

Ref. No.	Part No.	Part Name	Remarks
C521~524	257 0005 928	Chip Ceramic 180pF/50V	CC73SL1H181J
C525~528	257 0005 928	Chip Ceramic 180pF/50V	CC73SL1H181J
C529,530	257 0005 944	Chip Ceramic 220pF/50V	CC73SL1H221J
C555	256 1034 937	Plastic Film 0.047μF/50V	CQ93A1H473J
C545~548	257 0012 966	Chip Ceramic 0.01μF/50V	CK73F1H103Z
C570~573	257 0012 966	Chip Ceramic 0.01μF/50V	CK73F1H103Z
C581,582	254 4260 977	Electrolytic 4.7μF/50V	CE04W1H4R7M (SME)
C583,584	257 0005 902	Chip Ceramic 150pF/50V	CC73SL1H151J
C601,602	255 1264 937	Plastic Film 0.0018μF/50V	CQ93M1H182J (B)
C603~606	255 1265 978	Plastic Film 0.022μF/50V	CQ93M1H223J (B)
C607,608	254 4305 968	Electrolytic 1μF/50V	CE04W1H010M (SRE)
C609~612	257 0005 944	Chip Ceramic 220 PF/50V	CC73SL1H221J
C615,616, 798,828	257 0012 966	Chip Ceramic 0.01μF/50V	CK73F1H103Z
C652	254 4252 927	Electrolytic 47μF/10V	CE04W1A470M (SME)
C661,662	255 1265 994	Plastic Film 0.033μF/50V	CQ93M1H333J (B)
C663,664	255 1264 924	Plastic Film 0.0015μF/50V	CQ93M1H152J (B)
C821~824	253 1181 904	Ceramic 0.01μF/50V	CK45F1H103Z (DD-3)
C825	254 4256 790	Electrolytic 2200μF/25V	CE04W1E222MC (SME)
C854,826	254 4254 909	Electrolytic 10μF/16V	CE04W1C100M (SME)
C881	254 4255 717	Electrolytic 4700μF/16V	CE04W1C472MC (SME)
C990	253 8014 702	Ceramic 0.01μF/250V	CK45F2GAC103MC
OTHER GROUP			Q'ty
L201	235 0049 900	Inductor	BEADS INDUCTOR TAPE 1
L219	235 0080 901	Inductor	INDUCTOR (3R3) ST 1
SW301	212 5604 907	Tact Switch	TACT SWITCH-TA (ALPS) 1
SW304, 311~313	212 5604 907	Tact Switch	TACT SWITCH-TA (ALPS) 4
CF107	399 0041 901	Ceramic Resonator	CSA4.00MG 1
CF322	399 0191 903	Ceramic Resonator	CST4.00MGW-TF01 1
SW314,315, 319,320	212 5604 907	Tact Switch	TACT SWITCH-TA (ALPS) 4
SW302,303, 305,306	212 5606 905	Tact Switch	TACT SWITCH-TA (H9.5) 4
SW307,310, 318,321	212 5606 905	Tact Switch	TACT SWITCH-TA (H9.5) 4
SW651,701, 702	212 1140 009	Push Switch(ESB6440)	Push SW (ESB6440) 3

Ref. No.	Part No.	Part Name	Remarks	Q'ty
X101	399 0075 003	Crystal (7.2MHZ)	X-TAL (7.2MHZ)	1
X102	399 0178 007	Crystal (4.332MHZ)	X-TAL (4.332MHZ)	1
CF101	261 0141 001	FM Ceramic Filter	SK107M2-A0-20	1
CF102	261 0142 000	FM Ceramic Filter	SK107M3-A0-20	1
CF104	261 0101 009	AM Ceramic Filter	BFU450C4N	
CF105	261 0103 007	Ceramic Resonator	CSB456F11	
JK101	205 0847 004	3P Ant.Terminal(PAL/F)	3P ANT. TERM (PAL/F)	1
JK501,502	204 8545 004	4P Pin Jack(GND)	4P PIN JACK (GND)	2
⚠CB21	205 0581 001	2P VH Connector Base		1
CB31	205 0355 033	3P KR Connector Base (L)		1
CB37	205 0190 036	3P NH Connector Base		1
CB51	205 0343 058	5P Connector Base(KR-PH)		1
CB52	205 0355 059	5P KR Connector Base (L)		1
CB54	205 0829 051	5P CT Connector Base		1
CB81	205 0355 088	8P KR Connector Base (L)		1
CB91	205 0355 091	9P KR Connector Base (L)		1
CB231	205 0990 003	23P FFC Connector Base		1
CN31	203 4945 003	3P KR-DA Connector Cord		1
CN32	203 4946 015	3P KR-DA Connector Cord		1
CN36	203 4946 028	3P KR-DA Connector Cord		1
CN38	203 5133 021	3P KR-DA Shell Cord		1
CN41	203 6421 004	4P KR-DA Connector Cord		1
CN51	203 8474 004	5P PH-SAN Shield Cord		1
CN52	203 8475 003	5P PH-SAN Connector Cord		1
CN62	204 0411 000	6P KR-DA Connector Cord		1
CN81	204 2612 043	8P KR-DA Connector Cord		1
CN91	204 2613 055	9P KR-DA Connector Cord		1
CN111,112	205 0805 059	11P Connector Socket (9176)		2
CN121	205 0987 003	12P Connector Socket (9176)		1
CN131	205 0987 029	13P Connector Socket(9176)		1
CN291	205 0990 045	29P FFC Connector Base		1
⚠AC1	203 3961 004	1P AC Outlet(E2)		1
⚠AC2	203 2349 009	2P Inlet		1
⚠F1	206 1075 014	Fuse (1.25A)		1
⚠F2	206 1075 043	Fuse (2.5A)		1
FE101	216 9013 004	FM Front END (U) S		1

KU-9359 MAIN UNIT ASS'Y PARTS LIST

Ref. No.	Part No.	Part Name	Remarks	Q'ty
FL301	393 9561 002	VFD(11-BT-150GK)		1
HP701	204 8364 007	Headphone Jack		1
LP102,103	232 9011 008	Low Pass Filter		2
LP101	232 9010 009	Antibirdie Filter		1
⚠RL1	**214 0170 005**	**Relay(TV-8)**		1
RM301	499 0150 008	Remocon Sensor	SBX1610-52	1
T101	231 2909 004	FM IF Det		1
T103	231 3904 008	AM IFT		1
T104	231 1913 004	MW Ant-Osc Coil		1
⚠T2	**239 8019 002**	**Line Filter Coil**		1
TR855	274 0120 002	Transistor 2SD1762(E/F)		1
XL201	399 0112 005	Crystal(16.9344MHz)		1
	009 9037 013	1P Wire Assy		1
	009 9061 021	1P Wire Assy		1
	202 0040 909	FUSE CLIP (TAPE)		4
	461 9086 000	RUBBER SHEET		2

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC701	263 0615 902	IC BA15218F	
IC850	263 1040 903	IC BU4094BF	
TR701,702, 709,710	273 0235 923	Transistor 2SC1841(E/F)	
TR703,704, 707,708	271 0131 924	Transistor 2SA988(E/F)	
TR705,706	273 0198 905	Transistor 2SC1815(Y)	
TR705~708	276 0619 904	Diode 1SS2471	
TR711,712	274 0060 900	Transistor 2SD667A(C)	
TR713,714	272 0053 908	Transistor 2SB467(C)	
TR719,720	273 0235 923	Transistor 2SC1841(E/F)	
TR721	271 0131 924	Transistor 2SA988(E/F)	
TR724,723, 730	273 0384 900	Transistor 2SC2412K(S)	
TR725	271 0238 908	Transistor 2SA1037K(S/R)	
TR726~729	269 0099 908	Transistor DTC143TS	Builtin Resistor
TR801	271 0280 901	Transistor 2SA1038S(S/E)	
TR802	273 0432 904	Transistor 2SC2389S(S/E)	
TR803,807, 825	273 0388 906	Transistor 2SC1740S(E)	
TR805	274 0151 903	Transistor 2SD2004(P)	
TR806	272 0107 919	Transistor 2SB1328(P/Q)	
TR808	271 0192 905	Transistor 2SA933S(S)	
TR821	271 0279 909	Transistor 2SA1515(R)	
TR822,831, 832	269 0082 902	Transistor DTC114EK	Builtin Resistor
TR826	272 0131 901	Transistor 2SB1041(R)	
TR827	273 0388 906	Transistor 2SC1740S(E)	
TR850~853	269 0083 901	Transistor DTA114EK	Builtin Resistor
TR854	269 0091 906	Transistor DTC143TK	Builtin Resistor
⚠D801	**276 0338 007**	**Diode S4VB20F**	Bridge
D802, 852, 853	276 0553 905	Diode 1SR35-200A	
D830,833, 834,838	276 0616 907	Diode 1SS252	
D831	276 0553 905	Diode 1SR35-200A	
D850	276 0616 907	Diode 1SS252	
D701~704	276 0616 907	Diode 1SS252	
D709,710	276 0616 907	Diode 1SS252	
D711~713	276 0616 907	Diode 1SS252	

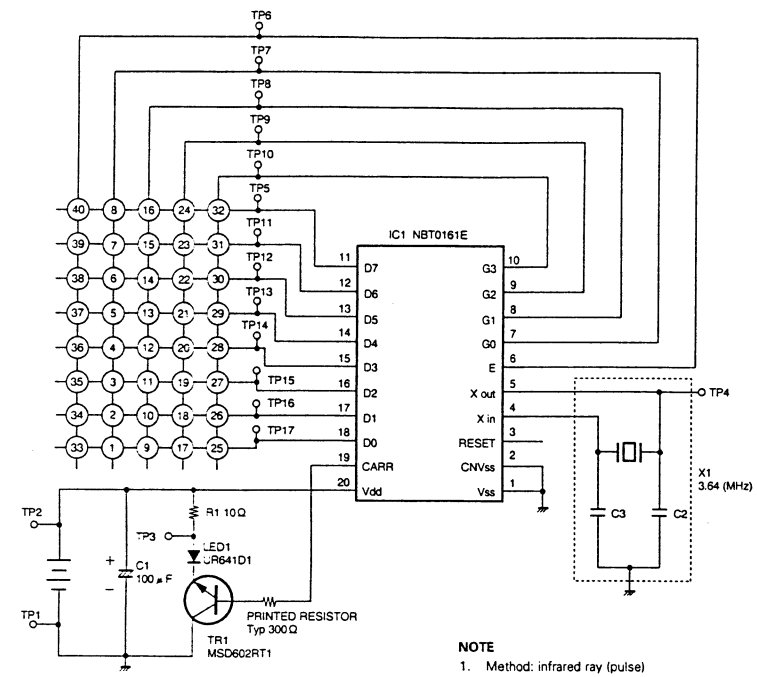
Ref. No.	Part No.	Part Name	Remarks
ZD803,804	276 0637 902	Zener Diode MTZJ6.2A	6V
ZD832	276 0643 967	Zener Diode MTZJ4.3A	4.1V
ZD835	276 0634 905	Zener Diode MTZJ3.3A	3.3V
ZD836	276 0645 949	Zener Diode MTZJ27A	25V
ZD860,861	276 0637 902	Zener Diode MTZJ6.2A	6V
RESISTORS GROUP	(Not included Carbon Film ±5%, 1/4W Type. Refer to the Schematic Diagram for those Parts.)		
R701,702	247 0012 969	Chip Carbon 150 kohm 1/10W	RM73B-154J
R703~706	247 0005 905	Chip Carbon 100 ohm 1/10W	RM73B-101J
R707,708	247 0010 916	Chip Carbon 13 kohm 1/10W	RM73B-133J
⚠R709,710, 723,724	**241 2379 932**	**Carbon Film 620 ohm 1/4W(NB)**	RD14B2E621JNBS
⚠R731~734	**241 2377 989**	**Carbon Film 150 ohm 1/4W(NB)**	RD14B2E151JNBS
⚠R735,736	**241 2378 920**	**Carbon Film 220 ohm 1/4W(NB)**	RD14B2E221JNBS
⚠R737~740	**244 2055 912**	**Metal Oxide 0.47 ohm 1W(NB)**	RS1483AR47JNBS (S)
⚠R741~744	**244 2055 912**	**Metal Oxide 0.47 ohm 1W(NB)**	RS1483AR47JNBS (S)
⚠R759,760	**244 2051 967**	**Metal Oxide 0.47 ohm 1W(NB)**	RS1483AR47JNBS (S)
⚠R761,762	**244 2043 937**	**Metal Oxide 10 ohm 1W(NB)**	RS1483A100JNBS (S)
⚠R765,766, 769,770	**244 2055 941**	**Metal Oxide 330 ohm 1W(NB)**	RS1483A331JNBS (S)
⚠R767,778	**244 2051 974**	**Metal Oxide 1 kohm 1W(NB)**	RS1483A102JNBS (S)
R773,838, 851	247 0009 985	Chip Carbon 10 kohm 1/10W	RM73B-103J
R774	247 0010 929	Chip Carbon 15 kohm 1/10W	RM73B-153J
⚠R776,777	**244 2050 959**	**Metal Oxide 270 ohm 1W(NB)**	RS1483A271JNBS (S)
⚠R801,802	**241 2387 940**	**Carbon Film 4.7 ohm 1/4W(NB)**	RD14B2E4R7JNBS
R820,854, 858,859	247 0009 985	Chip Carbon 10 kohm 1/10W	RM73B-103J
R823,836, 837,857	247 0007 945	Chip Carbon 1 kohm 1/10W	RM73B-102J
⚠R828	**241 2377 947**	**Carbon Film 100 ohm 1/4W(NB)**	RD14B2E101JNBS
R835	247 0008 928	Chip Carbon 2.2 kohm 1/10W	RM73B-222J
R852	247 0010 961	Chip Carbon 22 kohm 1/10W	RM73B-223J
R855	247 0008 960	Chip Carbon 3.3 kohm 1/10W	RM73B-332J
VR701,702	211 6093 912	Semi Fixed Resistor 47 kohm	V06PB472
CAPACITORS GROUP			
C701,702	254 4260 948	Electrolytic 1uF/50V	CE04W1H010M (SME)
C703,704, 711,712	257 0004 961	Chip Ceramic 100pF/50V	CC73SL1H101J
C705,706	257 0006 927	Chip Ceramic 470pF/50V	CC73SL1H471J
C707,708	254 4252 930	Electrolytic 100µF/10V	CE04W1A101M (SME)
C709,710,	257 0005 902	Chip Ceramic 150pF/50V	CC73SL1H151J

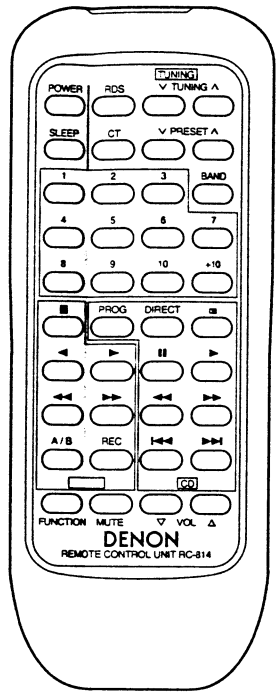
Ref. No.	Part No.	Part Name	Remarks
C713~716	253 4536 909	Ceramic 10 pF/50V	CC45SL1H100D (DD-3)
C717~720	256 1034 979	Metalized Film 0.1µF/50V	CF93A1H104J
C721,722	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M (SME)
C723,724, 727,728	255 1265 978	Plastic Film 0.022µF/50V	CQ93M1H223J (B)
C725,726	256 1034 979	Metalized Film 0.1µF/50V	CF93A1H104J
C729~732	254 4262 904	Electrolytic 4.7µF/63V	CE04W1J4R7M (SME)
C733	255 1265 936	Plastic Film 0.01µF/50V	CQ93M1H103J (B)
C734	254 4250 945	Electrolytic 330µF/6.3V	CE04W0J331M (SME)
C735~738	255 1265 907	Plastic Film 0.0068µF/50V	CQ93M1H682J (B)
C739,740,	257 0006 985	Chip Ceramic 820 PF/50V	CC73SL1H821J
C763,809, C810,856	257 0012 966	Chip Ceramic 0.01µF/50V	CK73F1H103Z
C741	254 4252 927	Electrolytic 47µF/10V	CE04W1A470M (SME)
C751,752, 755,756	257 0012 966	Chip Ceramic 0.01µF/50V	CK73F1H103Z
C753,754	254 4258 918	Electrolytic 10µF/35V	CE04W1V100M (SME)
C757~760	257 0012 966	Chip Ceramic 0.01µF/50V	CK73F1H103Z
C761,762, 764,830	257 0012 966	Chip Ceramic 0.01µF/50V	CK73F1H103Z
C768,841	254 4254 909	Electrolytic 10µF/16V	CE04W1C100M (SME)
C800,838	254 4260 948	Electrolytic 1µF/50V	CE04W1H010M (SME)
C801	256 1042 903	Metalized Film 0.1µF/250V	CF93A2E104K
C803~806	256 1042 932	Metalized Film 0.01µF/250V	CF93A2E103K
C807,808	254 4355 002	Electrolytic 6800µF/50V	CE04W1H682MDL
C811~814	254 4258 918	Electrolytic 10µF/35V	CE04W1V100M (SME)
C831	259 0007 702	Back up Cap 8.2mF/5.5V	SB CAP==822=C
C834	253 9037 908	Ceramic 0.1µF/50V	CK45=1H104Z (BC)
C835,840	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103Z (DD-3)
C836	254 4261 921	Electrolytic 100µF/50V	CE04W1H101M (SME)
C837	254 4260 993	Electrolytic 22µF/50V	CE04W1H220M (SME)
C839	254 4260 951	Electrolytic 2.2µF/50V	CE04W1H2R2M (SME)
C850,851	257 0014 935	Chip Ceramic 0.1µF/50V	CK73F1E104Z
C852	254 4250 932	Electrolytic 220µF/6.3V	CE04W0J221M (SME)
C853	254 4252 901	Electrolytic 22µF/10V	CE04W1A220M (SME)
C857	254 4260 977	Electrolytic 4.7µF/50V	CE04W1H4R7M (SME)
OTHER GROUP			Q'ty
L701,702	235 0104 007	Inductor (1µH)	2
JK701	205 0484 001	8P SP Terminal(E2)	1
JK801	204 8421 005	Mini Jack	1
CB32	205 0406 034	3P Connector Base(KR-PH)	1

Ref. No.	Part No.	Part Name	Remarks	Q'ty
CB34,38	205 0343 032	3P Connector Base(KR-PH)		1
CB41	205 0343 045	4P Connector Base(KR-PH)		1
CB53	205 0653 052	5P NH Connector Base		1
CB62	205 0343 061	5P Connector Base(KR-PH)		1
CB111,112	205 0806 058	11P Connector Base(9115)		2
CB121	205 0988 002	12P Connector Base(9115)		1
CB131	205 0988 028	13P Connector Base(9115)		1
CB291	205 0990 045	29P FFC Connector Base		1
CN34	203 4946 028	3P KR-DA Connector Cord		1
RL701,702	214 0154 005	Reray(VB24SMBV)		2
RL703	214 0127 003	Reray(RY-12W)		1
ST1-3	205 0452 017	Style Pin		3
TH701	279 0034 041	Posistor PTH9M04BD 222TS2F333		1
TP701,702	205 0190 036	3P NH Connector Base		2
	415 0309 055	P.V.C. TUBE (L=07)		2

REMOTE CONTROL UNIT (RC-814:Part NO.399 9054 009)

● Schematic Diagram



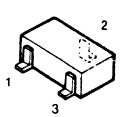


NOTE

1. Method: infrared ray (pulse)
2. Power supply: DC3V (R6P×2 pcs)
3. Packing method: used the palyester bag.
4. No defects on visible area be acceptable visible area like scratches.
5. Details: refer to the Specification.
6. This compornent part is EUR644355 by Matsuhita Equivalent Compornents Co" Ltd or the Equivalent.

● Transistors

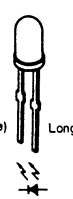
2SD1781K
or
2SD596



1 B (Base)
2 C (Collector)
3 E (Emitter)

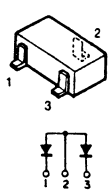
● Diodes

Infrared LED
SE313
SLR-938C
TLN115A



Short (Cathode) Long (Anode)

DAP202K
or
HSM2836CTR

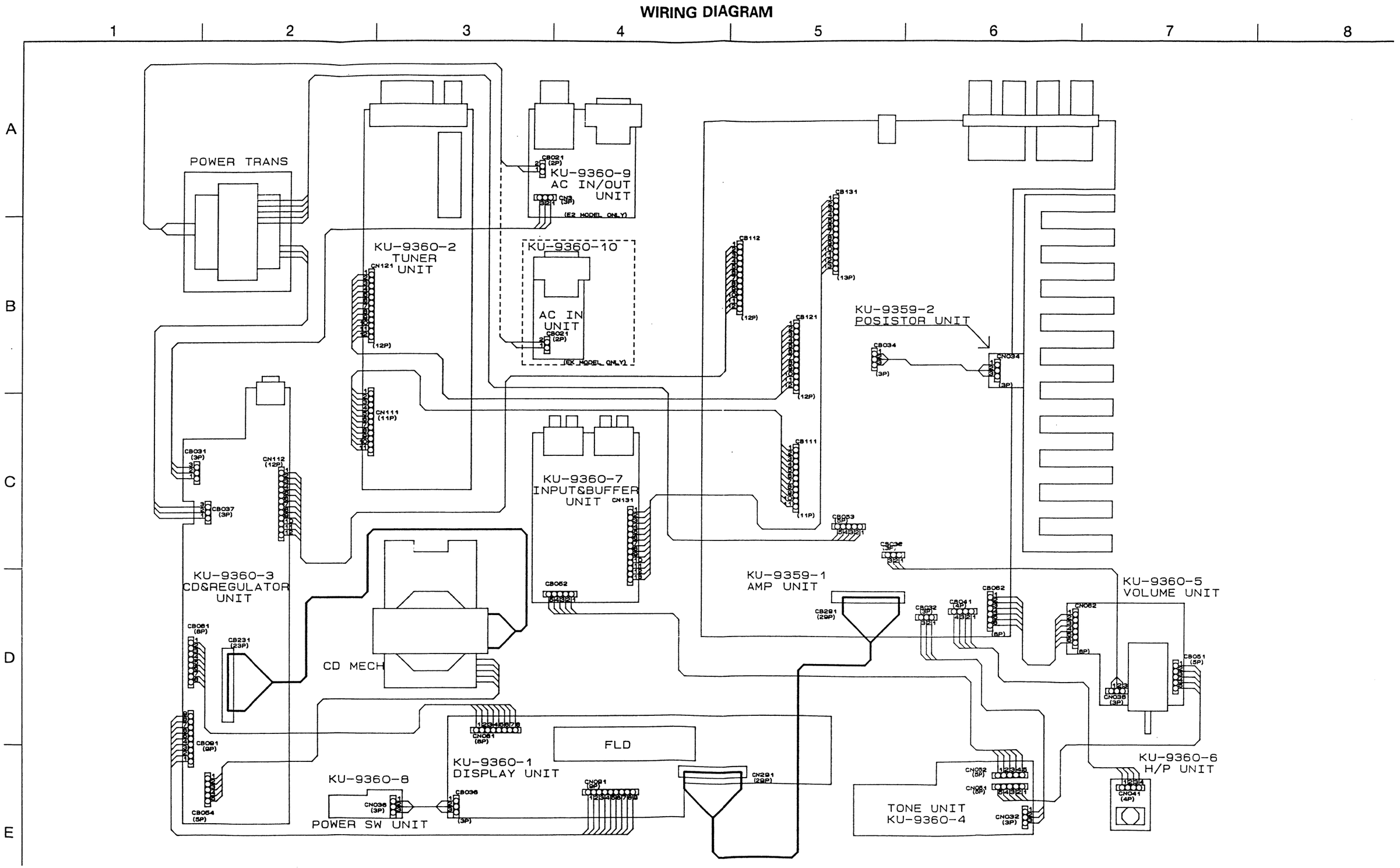


D1 (Tuner mode): The D1 code is to be sent after sending the BAND (K30) button and after
D2 (CD mode): The D2 code is to be sent after sending DIRECT (K03) or PROGRAM (K02).

	KEY NO.	FUNCTION	D1 C1 C15	D2 C1 C15
	K05	POWER	0011000000101000	0011000001101000
	K37	SLEEP	0011001001111000	0011001001111000
	K36	FUNCTION	0011011111101000	0011011111101000
	K04	■	0001001111101000	0001001111101000
	K25	▶	0001000111101000	0001000111101000
	K17	❚❚	0001010111101000	0001010111101000
*	K18	◀◀	0001011011101000	0001011011101000
*	K26	▶▶	0001001011101000	0001001011101000
	K19	⏮	0001010011101000	0001010011101000
	K27	⏭	0001000011101000	0001000011101000
	K38	1	0011001000001000	0001001000001000
	K14	2	0011011000001000	0001011000001000
	K22	3	0011000010001000	0001000010001000
	K03	DIRECT	0001011101010000	0001011101010000
	K39	4	0011010100001000	0001010100001000
	K15	5	0011001100001000	0001001100001000
	K23	6	0011011100001000	0001011100001000
	K02	PROG	0001010110010000	0001010110010000
	K31	7	0011000001001000	0001000010010000
	K40	8	0011010010010000	0001010010010000
	K16	9	0011011000110000	0001001010010000
	K35	A/B	0010011001010000	0010011001010000
	K24	10	0011000010110000	0001011010010000
	K32	+10	0011011110110000	0001000110010000
	K30	BAND	0011011101011000	0011011101011000
*	K07	TUNING ∨	0011001011011000	0011001011011000
*	K08	TUNING ∧	0011010011011000	0011010011011000
	K13	CT	0011011001011000	0011011001011000
	K06	RDS	0011001001011000	0011001001011000
	K21	PRESET ∨	0011011110010000	0011011110010000
	K29	PRESET ∧	0011001110010000	0011001110010000
	K33	◀	0010011101010000	0010011101010000
	K09	▶	0010000111010000	0010000111010000
	K34	◀◀	0010011011010000	0010011011010000
	K10	▶▶	0010000101010000	0010000101010000
	K10	■	0010001111010000	0010001111010000
	K11	●REC	0010011110100	0010011110100
	K12	MUTE	0011011010010000	0011011010010000
*	K20	VOLUME ∇	0011000110010000	0011000110010000
*	K28	VOLUME △	0011010110010000	0011010110010000

* The data is to be sent continuously while each of the following buttons is depressed: K07, K08, K18, K20, K26, and K28.

WIRING DIAGRAM



SCHEMATIC DIAGRAM (1 / 2) AMP. SE

1 | 2 | 3 | 4 | 5 | 6

KU-9360-7

KU-9360-4

KU-9360-8

KU-9360-1

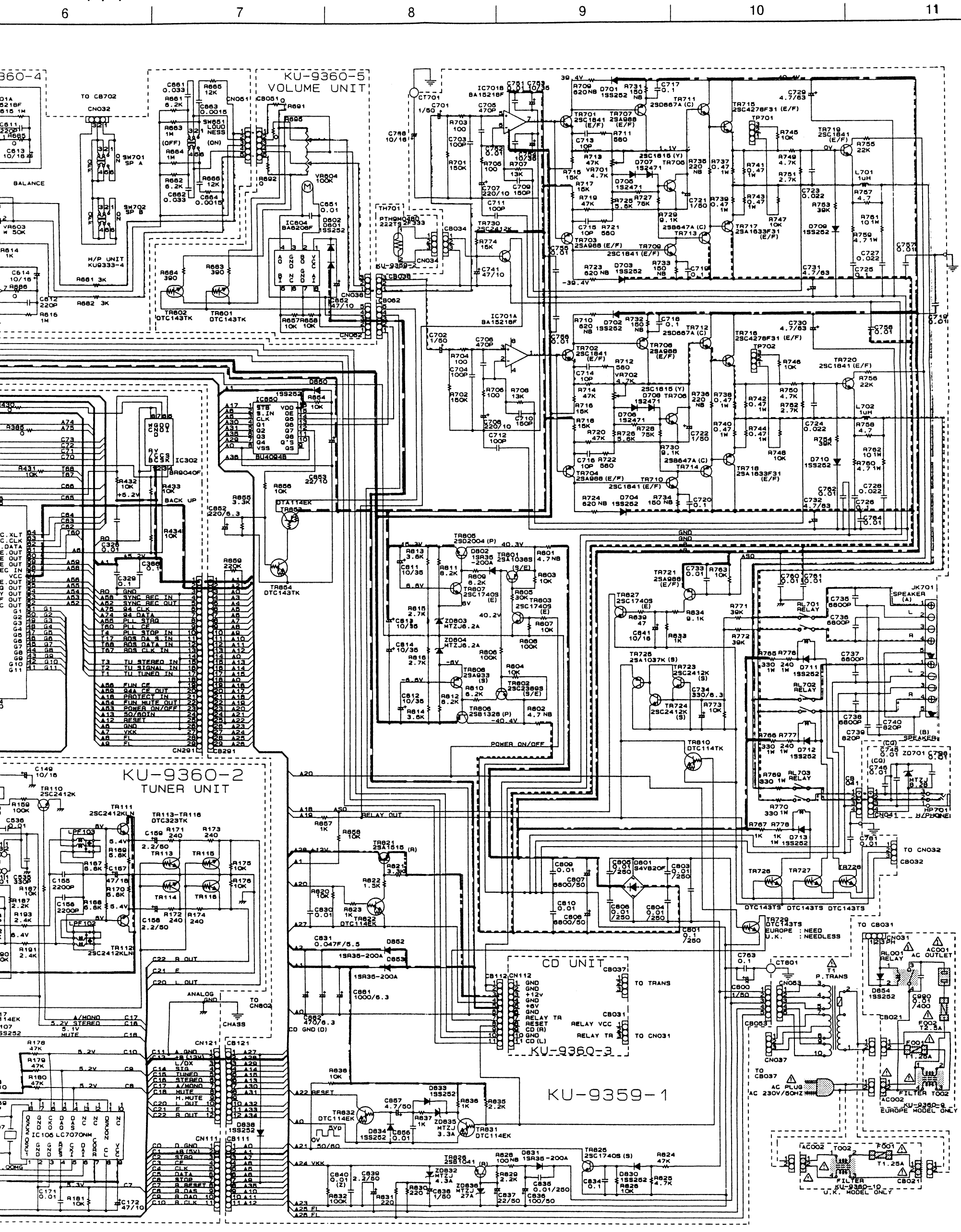
KU-936
TUNER U

—15V LINE
+15V LINE
—B LINE
+B LINE
+12V LINE
5V LINE
Lch LINE
Rch LINE
FM LINE
AM LINE

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis
leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240
defective.

WARNING
DO NOT return the unit to the customer until the problem is located and corrected.

C DIAGRAM (1 / 2) AMP. SEDTION



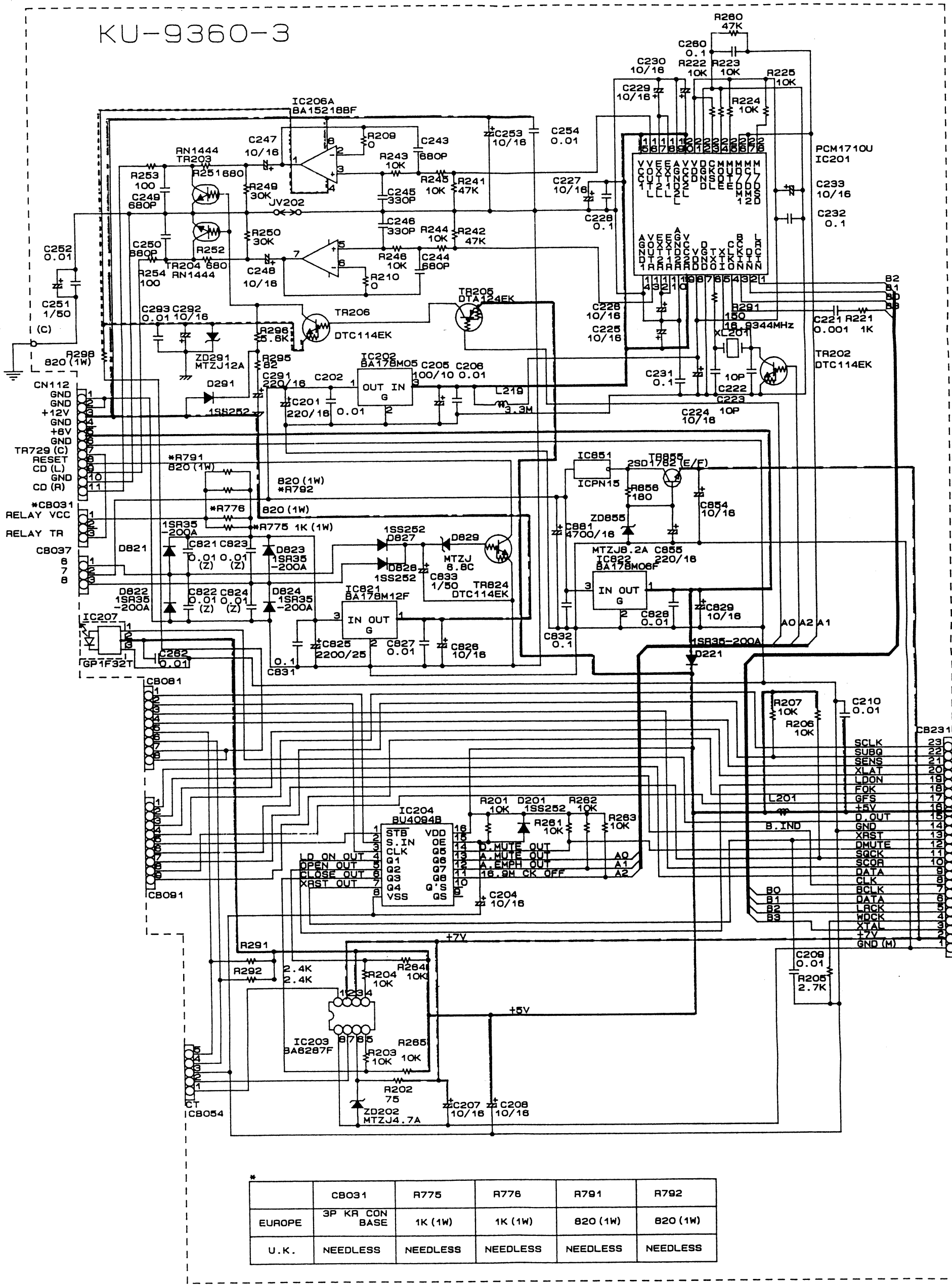
(1) a leakage current check or (2) a line to chassis resistance check. If the
sis to either side of the power cord is less than 240 kohms, the unit is

nd corrected.

WARNING:
Parts marked with this symbol △ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manifacturer.

NOTES
ALL RESISTANCE VALUES IN OHM K=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

KU-9360-3



*

	CB031	R775	R776	R791	R792
EUROPE	3P KR CON BASE	1K (1W)	1K (1W)	820 (1W)	820 (1W)
U.K.	NEEDLESS	NEEDLESS	NEEDLESS	NEEDLESS	NEEDLESS

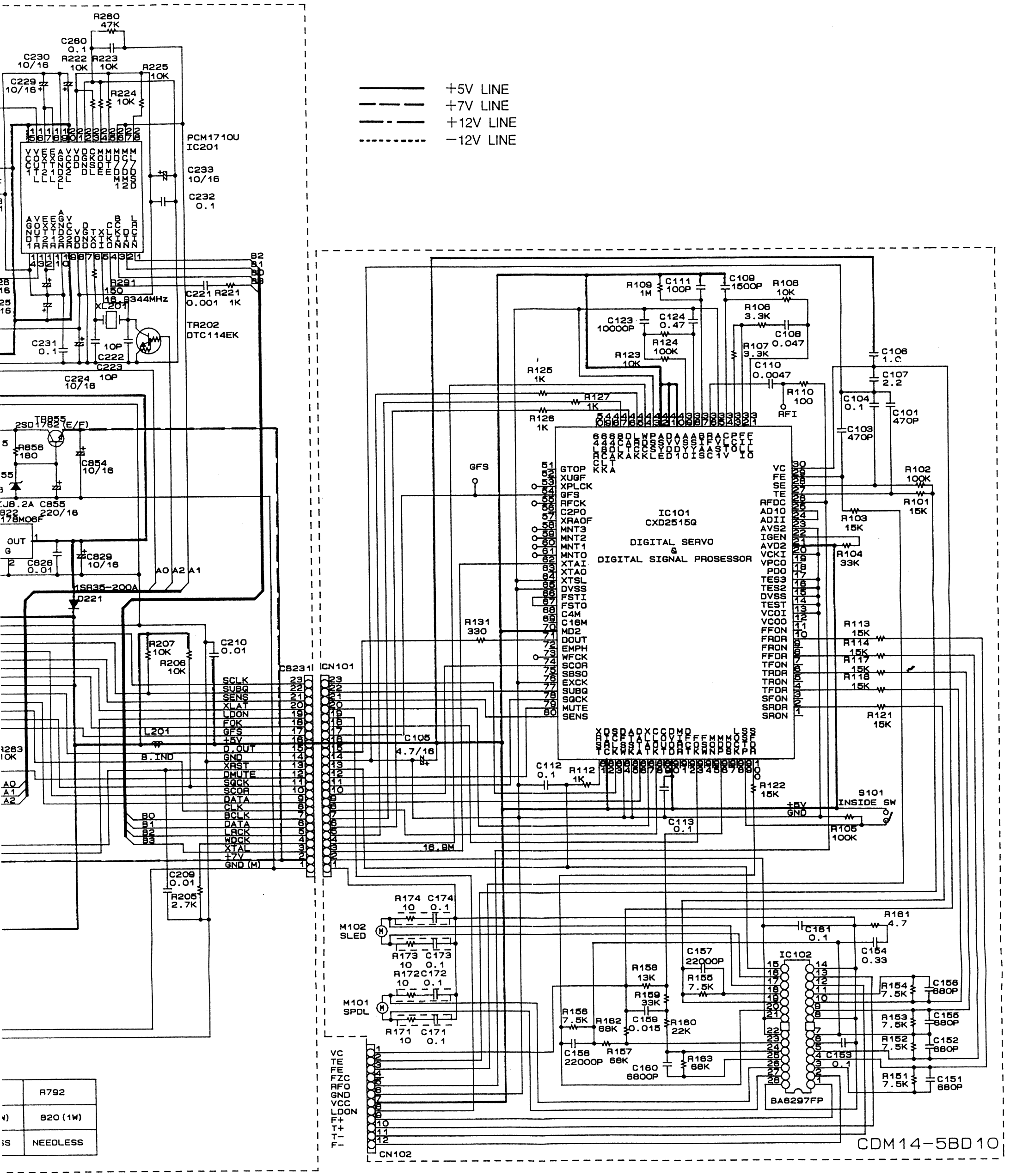
CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

WARNING
DO NOT return the unit to the customer until the problem is located and corrected.

WARNING:
Parts marked with this symbol ⚠ have critical characterist
Use ONLY replacement parts recommended by the manufactur

SCHEMATIC DIAGRAM (2 / 2) CD. SEDTION

5 | 6 | 7 | 8 | 9 | 10



	R792
W)	820 (1W)
SS	NEEDLESS

WARNING:
Parts marked with this symbol △ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manifacturer.

NOTES
ALL RESISTANCE VALUES IN OHM K=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

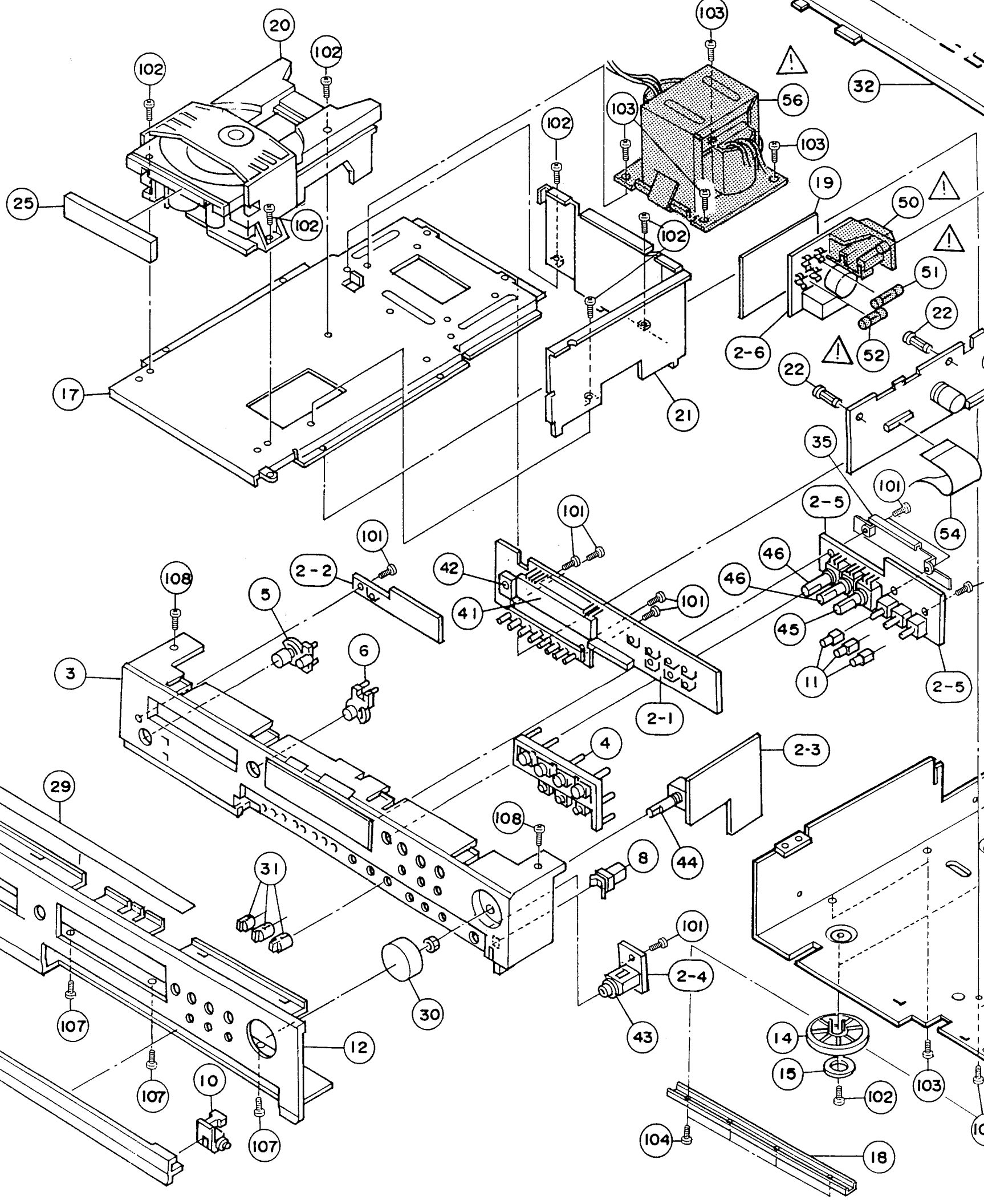
1 | 2 | 3 | 4 | 5 | 6

NOTE ON PARTS LIST

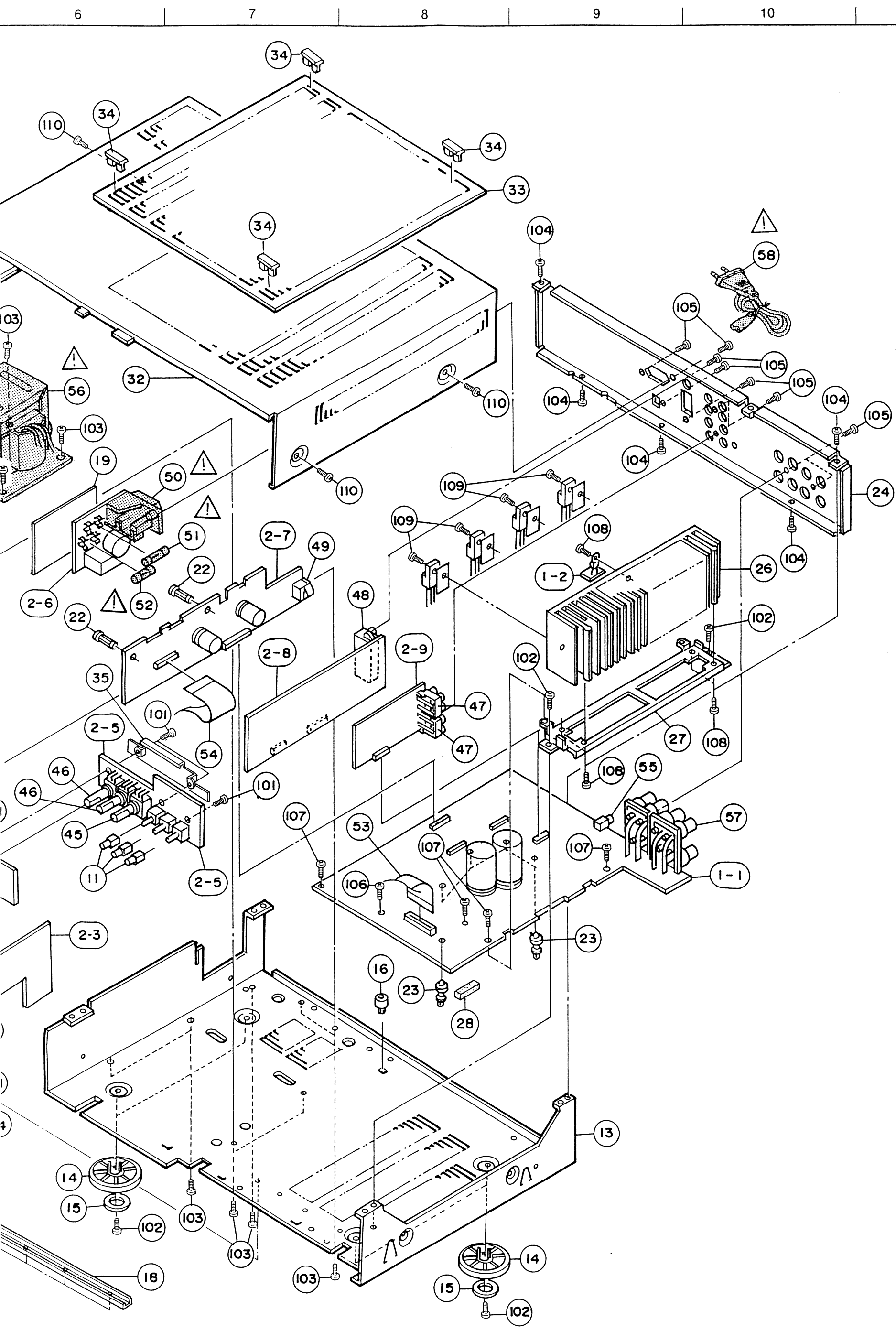
- Part indicated with the mark "◉" are not always in stock and possibly to take a long period of time for suppling, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "I" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.

WARNING:

Parts marked with this symbol △ ▨ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.



EXPLODED VIEW

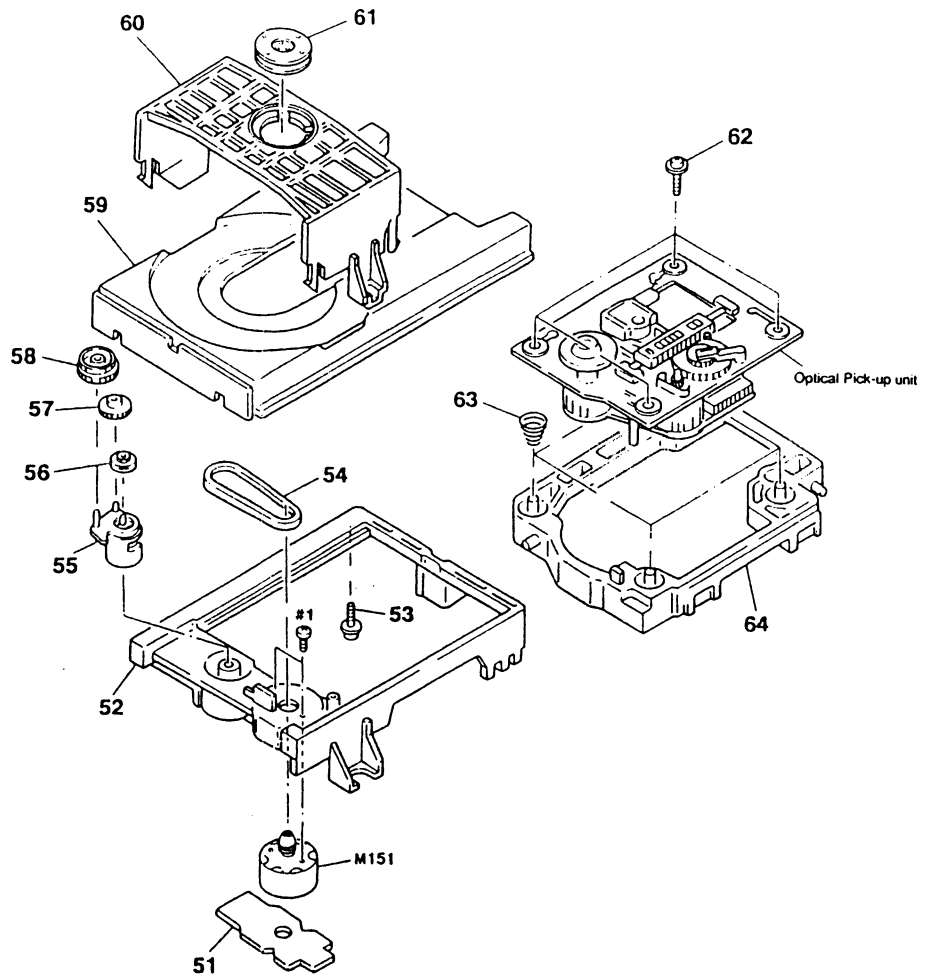


PARTS LIST EXPLODED VIEW

Ref. No.	Part No.	Part Name	Remarks	Q'ty
◉ 1	KU- 9359	Amp unit ass'y		1
1-1	KU- 9359 -1	Amp unit		
1-2	KU- 9359 -2	Posistor unit		
◉ 2	KU- 9360	TU-CD unit ass'y		1
2-1	KU- 9360 -1	Display unit		
2-2	KU- 9360 -8	Power sw. unit		
2-3	KU- 9360 -5	Volume unit		
2-4	KU- 9360 -6	H/P unit		
2-5	KU- 9360 -4	Tone unit		
2-6	KU- 9360 -9	AC In/Out unit		
2-7	KU- 9360 -3	CD & Regulator unit		
2-8	KU- 9360 -2	Tuner unit		
2-9	KU- 9360 -7	Input & Buffer unit		
3	146 9366 300	Inner panel ass'y	Gold model	1
	146 9366 313	Inner panel ass'y	Black model	1
4	113 9345 208	7G button	Gold model	1
	113 9345 211	7G button	Black model	1
5	113 9348 001	Power knob ass'y	Gold model	1
	113 1654 117	Power knob ass'y	Black model	1
6	113 9346 100	Open/close button	Gold model	1
	113 9346 016	Open/close button	Black model	1
7	144 9255 101	Trap door	Gold model	1
	144 9255 114	Trap door	Black model	1
8	435 0113 009	Latch (Y3Y18)		1
9	401 0175 112	Door hinge (L)		1
10	401 0176 111	Door hinge (R)		1
11	113 9323 026	Push knob (SP)		3
12	144 9254 209	Front panel	Gold model	1
	144 9254 212	Front panel	Black model	1
13	411 9146 301	Chassis		1
14	104 0273 210	Foot		4
15	461 0655 003	Rubber pad		4
16	443 9015 002	P.W.B spacer		3
17	411 9147 300	Sub chassis		1
18	412 9525 103	Stay		1
19	415 9106 000	Insulator		1
20	337 0040 001	CDM14-5BD10		1
21	414 9199 302	Shield bracket		1
22	412 1979 029	P.C.B holder		2
23	412 2814 002	Card spacer (L=8)		4
24	105 9276 305	Back panel	Europe model	1
	105 9276 318	Back panel	U.K. model	1
25	146 9363 002	Loader panel	Gold model	1
	146 9363 015	Loader panel	Black model	1
26	417 9097 209	Radiator		1
27	441 9053 301	Radiator bracket		1
28	461 9085 001	Spacer		1
29	122 0187 100	Top cover spacer		1
30	112 0691 149	Volume knob ass'y	Gold model	1
	112 0691 136	Volume knob ass'y	Black model	1
31	112 0645 195	H/P knob		3
32	102 9053 105	Top cover	Gold model	1
	102 9053 118	Top cover	Black model	1

Ref. No.	Part No.	Part Name	Remarks	Q'ty
33	414 0789 122	Sefty cover	Gold model	1
	414 0789 119	Sefty cover	Black model	1
34	449 0139 008	Cover holder		4
35	414 9204 006	Shield cover (tone)		1
41	393 9561 002	VFD (11-BT-150GK)	FL301	1
42	499 0150 008	SBX1610-52	RM301	1
43	204 8364 007	H/P jack	HP701	1
44	211 9137 008	V1620V20FB104T	VR604	1
45	211 9136 009	V11P25FW503-	VR603	1
46	211 9135 000	V1420P25FB503K	VR601,602	2
47	204 8519 001	4P pin jack	JK501,502	2
48	205 0847 004	3P ant.term (PAL/F)	JK101	1
49	269 0170 005	TOTX178	IC207	1
⚠ 50	203 3961 004	1P AC outlet (E2)	AC001	1
⚠ 51	206 1075 014	Fuse (1.25A)	F001	1
⚠ 52	206 1075 043	Fuse (2.5A)	F002	1
53	009 0109 018	29P FFC cable		1
54	009 9058 021	23P FFC cable		1
55	204 8421 005	Mini jack	JK801	1
⚠ 56	233 9686 009	Power trans (E2)		1
57	205 0484 001	8P sp terminal (E2)	JK701	1
⚠ 58	206 2108 003	AC cord with plug		1
SCREWS				
101	473 7505 007	Tapping screw 2.6×8 (P)		7
102	473 7002 005	Tapping screw 3×6 (S)		12
103	473 7004 016	Tapping screw 4×6 (S)		8
104	473 7002 034	Tapping screw 3×6 (S)	Black	10
105	477 0064 107	Fixing screw 3×10	Black	11
106	473 7508 046	Tapping screw 3×16 (P)	Black	2
107	473 7015 018	Tapping screw 3×8 (S)	Black	6
108	473 7500 015	Tapping screw 3×8 (P)		6
109	473 8007 038	Cup screw 3×14		4
110	473 4801 005	Tapping screw 4×8	Gold model	4
	473 7007 013	Tapping screw 4×10 (S)	Black model	4
PACKING & ACCESSORIES				
	505 0283 018	:Poly cover		1
	511 9466 006	Operating instructions		1
	399 9054 009	Remoto control unit	RC-814	1
	395 0023 008	:FM antenna ass'y		1
	231 1914 003	Loop antenna		1
⚠	206 2108 003	AC connector with plug	Europe model	1
⚠	206 2113 001	AC cord with connector	U.K. model	1
	503 9308 105	Cushion ass'y		1
	505 0131 050	Cabinet cover		1
	501 9297 003	Carton case		1
	513 9111 001	Color label(gold)	Europe model	1

MD UNIT

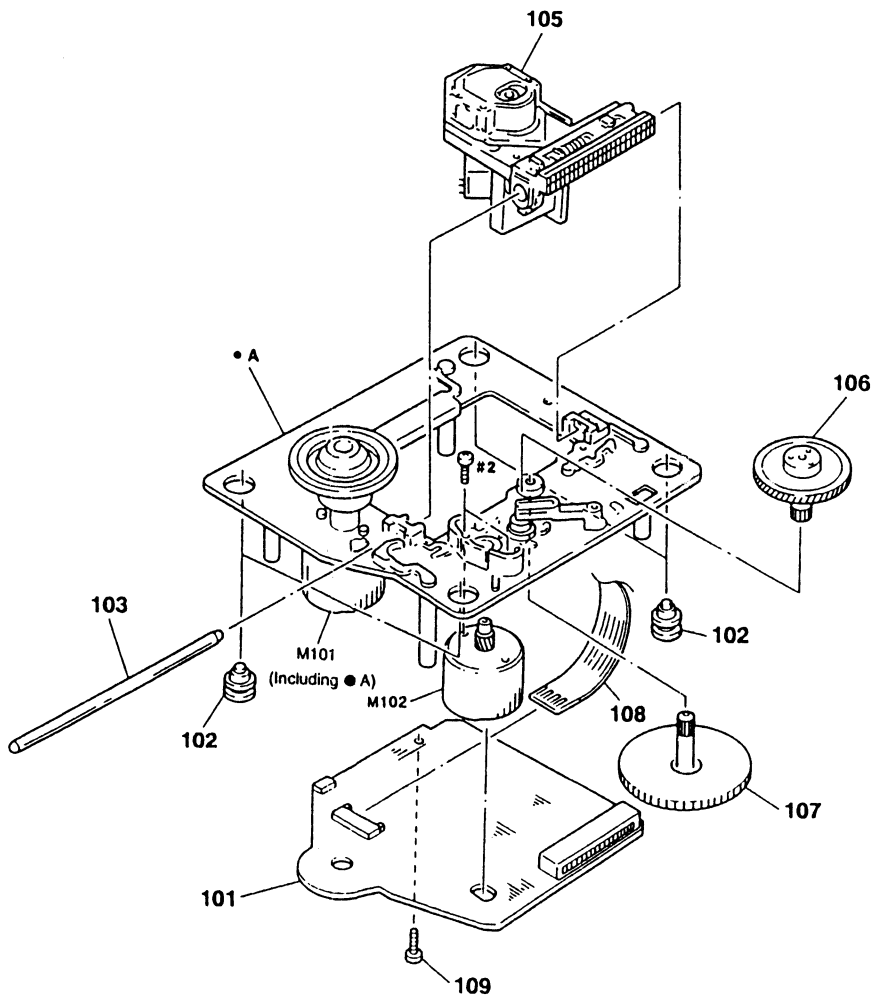


PARTS LIST OF CD MECHANISM UNIT

Ref No.	Part No.	Part Name	Remarks
51	S16 4572 111	Loading P.W.B. Unit Ass'y	See page 28, 29
52	S49 3311 101	Chassis(MD)	
53	S49 1758 321	Yoke Bracket	
54	S49 2764 901	Belt	
55	S49 3310 901	Cam	
56	S49 2765 101	Pulley(S)	
57	S49 2762 801	Gear(C)	
58	S49 3310 701	Gear(PL)	

Ref No.	Part No.	Part Name	Remarks
59	S49 3311 201	Disk Table	
60	S49 3311 001	Holder(MG)	
61	S14 5253 811	Magnet	
62	S49 3313 401	Screw	
63	S49 4850 301	Spring(BU)	
64	S49 3312 901	Holder(BU)	
M151	SA4 6043 63A	Motor(L)Ass'y	
#1	471 3201 024	2.6×4 CBS	

OPTICAL PICK-UP UNIT



PARTS LIST OF OPTICAL PICK-UP UNIT

Ref No.	Part No.	Part Name	Remarks
◉ 101	SA4 6494 32A	CD Mechanism P.W.B. Unit Ass'y	See page 28, 29
102	S49 3312 601	Insulator Rubber	
103	S49 1756 501	Sled Shaft	
105	499 0191 009	Optical PU KSS240A	
106	S49 1756 701	Gear(M)	
107	S49 1756 401	Gear(P)	

Ref No.	Part No.	Part Name	Remarks
108	S15 7500 111	Flat Cable	
M101	SX4 9175 233	Motor(Spindle)Ass'y	
M102	SX4 9175 041	Motor(Sled)Ass'y	
109	S49 5162 001	Screw	
#2	471 1810 019	2×3 CPS	